Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

July 25, 1960

EUROMART: A THREAT TO FRENCH CHEMICALS?

OPD REPORTS FROM EUROPE
PAGE THREE

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Oil, Paint and Drug Reporter

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Chemical Payoff Is High

Scratching at the door of the half-billion-dollar mark, chemical dividends reached a total of $493.4 billion during the first half of the year, up $23.3 million from the same period last year.

According to figures just released by the Department of Commerce, chemical makers paid out higher dividends in every month of the period except June. Comparable figures were $178.2 million this June as against $179.2 million a year earlier.

Reflecting a slowdown in the petroleum business, oil refining companies paid out less in cash dividends during the six month period this year than a year ago, and also during June.

The six-month total amounted to $707 million as against $730.1 million. During June, the month when the industry usually makes its largest payments, the total was $345.5 million as compared with $357.9 million in June, 1959.

Another industry closely associated with the chemical industry—the paper and printing group—reported increased dividends for both the six months period and for the June comparison.

During the January-June period, the total of this industry group was $134.9 million compared with $129.1 million a year ago. During June, dividend payments amounted to $40.1 million compared with $36.9 million in June last year.

The department said that cash dividends by all corporations issuing public reports amounted to just under $2 billion in June, bringing the total for the first half of 1960 to $6.5 billion. The six-month total was $400 more than last year, while the June figure was up 4 percent from the same month last year.

US an Exporter of Naphthalene? Ashland Facility Bolsters This Idea

With the advent of more than 225 million pounds of annual petroleum capacity by 1962, the United States is more than likely to wind up a net exporter of naphthalene. This tradition-shattering notion was pointed up last week as Ashland Oil & Refining Company broke ground for the world's first petroleum naphthalene plant. For what was overturned at Ashland, Ky.—besides several spadefuls of earth—was the long-held chemical marketing belief that naphthalene, which has traditionally been derived from coaltar, must go through squeezes and gluts, dependent on the whims of the steel industry and imports.

CELANESE PLASTICS MARKETING V.P.: Edward W. Ward, appointed vice-president and director of market for Celanese Plastics Company, a division of Celanese Corporation of America, New York.

US coaltar naphthalene capability is reckoned somewhat in excess of 650 million pounds a year—if you squeeze as much as possible out of available tar. Tack on 225 million pounds by 1962 from petroleum and at least 875 million pounds potential will be available two years hence.

Whither Phthalic Anhydride?

At the same time, phthalic anhydride output could climb to 400 million pounds, consuming around 480 million pounds of naphthalene. This leaves a considerable excess, most logical market for which seems at the moment to be overseas.

Specifically, West Germany appears the most likely candidate for naphthalene from this country during the sixties. In the past, the Federal Republic has been a large-volume exporter of naphthalene.

But in recent years, developments in the energy market and increasing syn-

—Continued on page 44

Cokeoven Aromatics Get a Lift From USI

US Industrial Chemicals Company has come up with a desulfurization process for benzene, toluene and other aromatics that may put small cokeoven operators in the same cost and purity league with producers of petroleum fractions.

The New York division of National Distillers & Chemical Corporation, which has been working on the process for several years, says that a desulfurization unit capable of processing 10,000 gallons of aromatics daily would cost only about $200,000.

The hydrogenation process used by the

—Continued on page 44

Chemical Trade to Hear What's Up in Outer Space

What's the latest on Project Mercury, the nation's man-in-space venture? Have large fluorine rocket engines finally made the grade? What's new in missile fuels?

Top chemical industry executives hope to hear the answers to these and myriad other questions at a classified briefing conference to be held in Washington this Thursday and Friday (July 28 and 29) by the National Aeronautics & Space Administration.

The first such parley to be scheduled by NASA, it is aimed at giving some 1,300 chemical and other industrialists, government officials and university research people the low-down on the high-flying US space program.

According to Dr. T. Keith Glennan, NASA administrator, the agency intends to present a comprehensive report of its current activities and future objectives, both short- and long-range.

At the first session on Thursday, Dr.

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OPD Reports From Europe

French Chemical Producers Fret About Common Market: Will It Be Bitter to Gauls?

As part of its continuing series of first-hand reports-in-depth from Europe, OPD here takes a penetrating look at the French chemical industry. A comprehensive analysis of British chemical potential appeared in the May 30th issue.

German, English, Scandinavian and American tourists along the Champs-Elysee this summer see the signs of a burgeoning French economy, confident of its future in Europe. But in the top chemical company offices clustered near that fabled avenue some of the grim business realities of the Common Market are looming larger today than the glowing headlines.

With all the talk of the fabulous economic future, little has been said of the fact that the Common Market does mean a radical increase in competition and demands great flexibility in corporate planning.

This is particularly true for French industry, which has been shielded for a century by such effective barriers as high tariffs and low import quotas. The Common Market's almost magnetic attraction for heavy investment by leading companies of other nations—the United States is usually singled out—is a big cause for concern.

Chemicals Have Least to Fear

The French chemical industry, growing at an annual rate of 10 percent to 14 percent for a decade, probably has less to fear from Common Market changes than any other French industry.

The most progressive of all the major industries in France, chemicals will be the only one to exceed the targets set in France's third four-year "plan" due to end next year, with the organic chemical sub-industry surpassing every other individual segment of the economy in growth since 1957.

Union des Industries Chimiques, the French chemical industry association, estimates 1959 sales volume at $3 billion, 140 percent higher than 1952 (the UIC calculation has a narrow base as it excludes synthetic fibers, rubber, glass, fats and oils and soap).

Many big companies report that sales during the first half of 1960 were moving at a rate 15 percent or more above the like period of 1959 and the trend is expected to continue. Capital expansion last year was about $225 million, with an estimated $240 million anticipated this year and more than $265 million in 1961.

With 1956 output as a base 100, official figures show inorganic chemicals at 133 this year and 145 forecast for 1961; organic chemicals will be more than double 1956—at 203 this year, with 236 predicted for next year.

Plastics considered separately are running at an index rate of 255 for 1960 and the figure for next year is predicted to be 355—an increase equivalent to all of 1956's production.

Total French chemical exports in the first quarter of this year were $165 million, well above the $109 million in the first quarter of 1959. Exports for all of 1959 totaled $510 million, up 20 percent

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PETROCHEMICAL SALES MANAGER: J. G. Hough, promoted to general manager of petrochemical sales for Continental Oil Company, with headquarters in New York.

US Styrene Capacity: Shell Swells the Total

The flood of US styrene expansions isn't ebbing yet. Shell Chemical Company is in with the news today (July 25) that it intends to kick up industry monomer capacity by another 75 million pounds.

The New York-based concern says it has awarded a contract for the enlargement of its styrene production facilities at Torrance, Calif.

Slated for completion early next year, the project is expected to raise the plant's annual monomer capacity to 210 million pounds. It's generally believed that the installation now turns out about 135 million pounds of styrene a year.

Shell's expansion move follows closely

—Continued on page 67

Chlorine Captive Plant Blueprinted by Stauffer

Stauffer Chemical Company will build a captive chlorine plant in the Wilmington area of Los Angeles. Engineering will begin this month, with completion of the facility slated for late next year.

The installation's total chlorine output will be supplied to American Chemical Corporation (jointly owned by Stauffer and Richfield Oil Corporation) as a raw material for the production of vinyl chloride, ethylene chloride and ethylene dichloride. The coproduct will be consumed by Stauffer.

Stauffer currently has chlorine units at Niagara Falls, N. Y., and at Henderson, Nev.

FDA Bares Its Teeth in New Set of Rx Drug Controls

Drug manufacturers face a drastic tightening of controls over the production and marketing of prescription drugs by the Food & Drug Administration.

Tentative regulations being processed by the agency require producers to include all information contained in their "official brochures" in every sales package of Rx products.

What's more, their advertising must adhere strictly to this official data, containing both advantages and disadvantages of the product, if they are to get a drug cleared for marketing.

The agency is also demanding that, when safety requires, a new drug will be kept off the market until an FDA factory inspector can confirm the maker's claims of manufacturing methods, facilities and controls.

The inspection must verify that the pharmaceutical house can insure the identity, strength, quality and purity of each batch of the drug.

The new restrictive measures are contained in amendments to regulations announced in the July 22nd *Federal Register*, and the drug industry has sixty days in which to file comments.

While the changes have been under consideration by FDA for more than five years, there seems little doubt that the Kefauver investigation was responsible for blasting them loose.

Pharmaceutical Manufacturers Association intends to set up a special committee immediately to study the proposed changes, and is expected to voice a number of objections in a statement to be filed with FDA later on.

Under existing law, drug manufactur-

—Continued on page 67

Chemical Specialty Exporters Hit High Tariffs, Shipping Lines

One reason the overseas market for products of American chemical specialties manufacturers is no bigger than it is, is the high tariff walls that have been built up in the other countries to protect home industries. Another is the poor service American shippers are getting from the US steamship lines. The chemical specialties industry has a half-dozen additional reasons why it doesn't sell more abroad—some being problems of its own making—but these two were the most prominent of any mentioned at a meeting last week with Department of Commerce officials.

A representative committee of the industry was invited to Washington by the department for a discussion of the foreign trade situation. The meeting was part of the overall effort by the government to get a picture of export handicaps under which key American industries labor, and to determine measures this government might take to help export trade.

Data to Be Used at GATT Parley

Officials plan to use the material when mutual tariff concessions are discussed with other countries at the forthcoming meetings under the General Agreement on Tariffs & Trade.

The output of the chemical specialties industry runs around $2 billion annually. Last year its exports amounted to only about 1.5 percent of this amount, or little more than $300 million.

Industry spokesmen said that the reason it is not higher is because of high tariffs abroad, licensing restrictions and exchange difficulties, among other things.

They admitted some of these difficulties probably can be offset, however, if manufacturers or suppliers give a little thought to the value of personal acquaintance with its overseas customers and improved their packaging.

Better service by US shipping lines out of American ports was cited as a pressing need, with the steamship companies being criticized for failure to live up to published schedules. This practice, it was said, is extremely costly to exporters.

One thing the manufacturers would like to see is a parity in customs rate making. Some of the industry representatives pointed out that the charges im-

—Continued on page 35

Pants Are Too Long, But Crease Is Perfect

Sam, the tailor, may make the pants too long, but he won't be able to mess up that crease any more.

You have that on the solemn oath of the Department of Agriculture, which says its researchers have come up with a chemical method that will give wool slacks and skirts permanent creases or pleats.

The magic formula: a dilute solution (0.5 to 2.0 percent) of ethanolamine in water, with a very small amount of detergent added to facilitate wetting.

The treatment is still being tested, but USDA plans to apply for a public-service patent, which will make the method available for commercial use on a royalty-free basis.

Dow Canada Moves In Several Directions

Dow Chemical Company's Canadian operations are getting a big boost this week. At Sarnia, the company's Canadian affiliate has started engineering of a plant to produce propylene glycol, propylene oxide and polyglycol. Other products are also under study.

At the same location, Dow Chemical of Canada will commence engineering on a polypropylene plant which will use a process complementary to the firm's polyethylene operation there.

Meanwhile, ground is about to be broken for a new phenol plant at Tilbury Island, near Vancouver, B. C. Site development is already in progress, and a construction contract has been awarded to Canadian

—Continued on page 60

Merck's Reagent Inventory In Canada Sold to McArthur

Following through on plans to stress pharmaceutical sales in Canada, Merck & Co. has sold its inventory of fine and reagent chemicals to McArthur Chemical Company, marketing subsidiary of Shawinigan Chemicals, Ltd., Montreal, Quebec.

Facilities for laboratory control and packaging of these chemicals have been put up by McArthur at its Montreal location.

Alien Property Office Loses Individual Status in Justice

Office of Alien Property was abolished as a separate operating division in the Department of Justice last week and its functions transferred to the office of the Attorney General.

Dallas S. Townsend, who has served as assistant Attorney General for alien property, will continue in charge as a special assistant to the Attorney General.

Department of Justice explained that when Mr. Townsend was appointed in 1953 he instituted a program to wind up the affairs of the Office of Alien Property as quickly as possible.

The program has now reached a stage, it was stated, where it is no longer necessary to continue OAP as a separate operating division.

The Week's Price Changes

Bay Oil, Copra, Hydrocortisone, Sandalwood Oil Advanced. Citronella, Corn Oil, Linseed Meal, Peanut Oil Reduced.

Prices Advanced

Bay oil, Puerto Rican, 55-60 percent, 5c. per lb. (p. 55).
West Indian, 50-55 percent, 15c. per lb. (p. 55).
Coconut oil, ½c. per lb. (p. 59).
Copra, $7.50 per ton (p. 59).
Hydrocortisone 50c. per gram (p. 47).
Sandalwood oil, $1 per lb. (p. 55).

Prices Reduced

Citronella, Ceylon, 10c. per lb. (p. 55).
Coriander oil, 75c. per lb. (p. 55).
Corn oil, crude, ¼c. per lb. (p. 59).
Linseed meal, expeller, $1.50 per ton (p. 59).
Peanut oil, crude, ½c. per lb. (p. 59).
Refd., ½c. per lb. (p. 59).

OPD Price Index

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

July 22, 1960	July 15, 1960	July 25, 1959
109.47	109.37	109.31

Plastics Wrap Up Film Market

In the transparent film market, five years of clear skies and smooth sailing—and that's the weather report from Reynolds Metals Company—will bring a 67 percent sales boost by 1965. The increase is expected to total 465 million pounds. According to Paul Murphy, general manager of Reynolds' packaging sales, plastic films will account for at least 82 percent of the boost, with polyolefins and specialty films setting the pace. Annual sales of water-soluble polyvinyl acetate film will soar to 11 million pounds by 1965, he says.

Mr. Murphy's crystal ball shows polyvinyl chloride sales hitting the 10-million-pound mark by that year. For comparison, he notes that sales of the two resins will total slightly more than one million pounds each this year, according to industry estimates.

Mr. Murphy's forecasts came at the Western Packaging & Materials Handling Exposition in Los Angeles last week.

What's Behind Projected Sales Boost?

Here are the marketing facts that lie behind the projected sales boost, according to the Reynolds executive:

- PVA now provides a "product long sought by the home laundry industry:" an economical non-brittle film that runs well on packaging machinery and dissolves quickly in hot water.
- Consumer demand for convenience and portion-control will make packets of water-soluble film for soaps, detergents and dry bleaches a standard item on grocery shelves.

To demonstrate advantages of the two films to visitors at the Reynolds exposition booth, small boxes containing a water-soluble packet filled with detergent were wrapped in PVC and conveyed

—Continued on page 40

DODGE & OLCOTT V.P.: Kenneth W. Hartley, apointed vice-president and sales manager of Dodge & Olcott, Inc., New York.

3M Motto: 'I Am a Camera'

Minnesota Mining & Manufacturing Company, St. Paul, Minn., has added a camera company to its diversified line of holdings. The company, a manufacturer of paints, chemicals and industrial consummer tapes, last week purchased a full interest in Revere Camera Company, Chicago. Terms of the transaction were not disclosed. Revere's management and operating policies will continue without basic change, a spokesman for 3M says.

Monsanto Appoints Two To High Overseas Posts

Edward B. Seaton and James A. Singmaster, jr., have been appointed assistant general managers of Monsanto Chemical Company's overseas division, effective August 1.

Mr. Seaton presently is director of operations for the division. Mr. Singmaster is a member of the St. Louis, Mo., company's corporate planning staff. The position of director of operations will not have been filled when Mr. Seaton assumes his new post August 1, but an announcement will be made at a later date concerning this vacant space on the corporate planning staff.

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PENNSALT OF CANADA V. P.: George R. Lawson, elected vice-president, general manager and a director of Pennsalt Chemicals of Canada, Ltd., Oakville, Ontario, wholly-owned subsidiary of Pennsalt Chemicals Corporation. Mr. Lawson, who operates out of the parent company's Philadelphia headquarters, continues as general manager of Pennsalt's chemical specialties division.

Hooker Gets Deeper In Feed Supplements

As a top producer of elemental phosphorus, Hooker Chemical Corporation has just made the logical addition to its present feed supplement business. The Niagara Falls, N. Y., firm has acquired full ownership of Butler Chemical Company of Galena Park, Tex., near Houston, a manufacturer of defluorinated phosphate rock, from Houston Corporation.

Prices and terms of the acquisition were not disclosed. For the present, the Galena Park plant will be operated as a separate unit of Hooker under the Butler Chemical name, with John Hinkel continuing as general manager. The sales department, under the direction of Floyd Gee, will continue at its present Houston headquarters.

As its main raw material, the Butler plant uses dried, ground Florida phosphate rock. The rock is treated with phosphoric acid under heat, which makes it suitable for mixing into livestock and poultry feed formulations. Hooker's phosphorus division has been producing phosphoric acid and phosphorus compounds at a Dallas facility since 1957.

Butler markets its feed supplement under the trade name "Pollyphos" to midwest and west coast manufacturers. The company's annual sales have not been revealed.

Established in 1946, the feed supplement business was taken over by Butler

—*Continued on page 56*

DuPont Is Consolidating Formalin, Electroplating

E. I. duPont de Nemours & Co. is realigning its formaldehyde and electroplating products business to consolidate the research, production and sales of each into a single department.

At present, each line falls under two operating departments. The consolidation takes effect September 1.

The formaldehyde and the formaldehyde derivatives business, now conducted by the electrochemical department, will be transferred to the industrial and biochemicals department. The electroplating products line, now handled by the industrial and biochemicals department, will be transferred to the electrochemicals department.

GATT Preliminary Skirmish: Chemical Producers Rest Case Against Further Tariff Cuts

The chemical industry has rested its case with the Tariff Commission and the Committee for Reciprocity Information against negotiating any more duty reductions in the chemical tariff schedule at the upcoming Geneva meetings on the General Agreement on Tariffs & Trade (GATT). From here on out, the decision rests with the government experts—now busily analyzing a mountain of data on costs, prices, production, imports and exports—whether competition in the American chemical market is to be intensified by a freer inflow of foreign materials.

For eight full days, more than two score witnesses from the industry paraded before the two government agencies arguing vigorously that rising costs in the US, increasing imports and the prospect of a more aggressive chemical industry developing out of the European Common Market, is putting American chemical producers in an untenable position in their own home market.

Warnings Run the Gamut

Testimony ranged all the way from sharp warnings of disaster facing some domestic makers by a further cut in tariffs to complaints that additional duty reductions will mean only greater profits to foreign suppliers.

Under the law the President can reduce existing tariffs an additional 20 percent, with not more than 10 percent of the reduction taking place in one year.

Having aired their pleas and bolstered their arguments, in many instances, with confidential information on production costs, producers now can only sit back and wait on the outcome. This may take as long as nine months.

The first of the GATT meetings start in Geneva in September, but these have to do with questions arising out of the development of the European Common Market. The negotiation of new tariffs do not start until January.

Complaining that foreign glue suppliers are taking advantage of an "error" in the tariff law establishing separate duties for animal glues and gelatine NSPF (priced under 40 cents a pound) to flood the market with technical gelatine, William R. O'Connor, vice-president of Peter Cooper Corporations, Gowanda, N. Y., urged that this be corrected.

Speaking also for the National Association of Glue Manufacturers, Mr. O'Connor said that prior to the time a difference in rates for glue and gelatine existed, imports of technical gelatine were practical-

—*Continued on page 37*

MARKET RESEARCH MANAGER: J. W. Everson, named manager of the market research department of the Dow Chemical Company, Midland, Mich., succeeding Parker Friselle who has been placed in charge of a sales development group in Dow's consumer products operation.

Polybutadiene Ante Is Raised by Phillips

As newcomers lay down their challenge, the snap of the whip lash can be heard on the inside track of the polybutadiene steeplechase. Latest: Phillips Chemical Company, with a 20,000-ton-a-year plant abuilding at Borger, Tex., has decided to add another 5,000 tons at that location.

The Bartlesville, Okla., company expects to have the entire unit in operation by the fourth quarter of this year.

In addition, Phillips has licensed its new "Cis-4" polybutadiene synthetic rubber process to two companies in the US and one in Italy. Other companies are said to be seeking licenses.

The latest challenge, though not one to threaten Phillips' first-place position in the race, was issued a week earlier by

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Armour's Fertilizer Works Seized by Cuban Militiamen

A $500,000 fertilizer plant, operated at Mantanzas, Cuba, by Armour & Co., has been seized by Cuban militiamen. The plant, described by an Armour spokesman as "a relatively small operation," mixes Florida phosphates with nitrogenous materials. It is not a producing unit.

Armour has operated in Cuba since 1916, but this is the company's sole facility on the island, with the exception of a warehouse which was taken over by the National Institute of Agrarian Reform in March. The present seizure involves the plant, heavy equipment and related dock facilities.

Grace Makes Name Changes For Two Chemical Divisions

W. R. Grace & Co., New York, has changed the name of its Grace Chemical Division to Nitrogen Products Division and that of its Dewey & Almy Overseas Division to Overseas Chemical Division.

The US-based Dewey & Almy Chemical Division in Cambridge, Mass., will retain its present name, as will Grace's five other chemical divisions.

The nitrogen products unit, which was formed under its former name in 1952 as Grace's first "grass-roots" chemical operation, produces ammonia and urea at Memphis, Tenn. It also has managerial responsibility for two of Grace's Caribbean interests and operates a number of ammonia distribution facilities in the midwest.

The overseas unit operates twelve plants in nine countries. Its most recent assignment has been to manage the newly-acquired Industria Chemica Produtos Ftalicos SA, in Sao Paulo, Brazil.

Ultramarine: Will it Bring Off Tariff Coup?

At least one chemical executive is back home from Washington happily assured that his appeal last week to the Tariff Commisison for some relief from cut-throat foreign competition was not in vain.

He is W. H. Stark, vice-president of Standard Ultramarine & Color Company, Huntington, W. Va. Mr. Stark—along with Harold L. Porter of the same firm and two spokesmen for the local labor union—appeared before the commission to protest any duty reduction on ultramarine blue.

The pigment is one of the many chemical products that may be offered for bargaining at the forthcoming negotiations in Geneva under the General Agreement on Tariffs & Trade. Standard Ultramarine has an "escape clause" application covering the color on file with the commission.

The Whole Story Unnecessary

Mr. Stark didn't even have to give his whole story before he got the answer he was looking for.

Commission chairman Joseph E. Talbot broke in on the executive's account and told him that his testimony, together with the confidential information already on file, indicates enough of a prima facie case to permit the government agency to decide whether an "escape clause" probe on ultramarine blue is warranted.

Mr. Talbot applied the icing to the cake when he added that Mr. Stark might as well cancel his scheduled appearance before the Commission for Reciprocity Information because it wouldn't be necessary.

In connection with the upcoming GATT conferences, the Tariff Commission is investigating the "peril points" on products on the negotiation list. CRI is receiving testimony on whether a product should be listed for bargainng.

Standard Ultramarine & Color is the last of the ultramarine blue producers in the United States, Mr. Stark said. Its selling price for this pigment—which has remained unchanged since 1953—averages 29.8 cents a pound, with grade prices ranging from 22.5 cents to 37.5 cents a pound.

Because of competition of foreign suppliers, the concern is able to move only

—*Continued on page 62*

Stauffer Now Producing Columbium, Tantalum Items

Stauffer Chemical Company reports today (July 25) that it has started up production of columbium pentachloride and tantalum pentachloride in commercial quantities. At the same time, a new price schedule has been established for the two chemicals.

Under the new schedule, the tantalum compound is priced at $10 a pound for shipments of 2,000 pounds or more; $10.25 for less than 2,000 pounds and $11 to $13 for quantities smaller than a 365-pound drum. Comparable prices of the columbium compound are $5, $5.25 and $6 to $10 a pound, respectively.

Lower prices are available for large quantities on annual contract. All quotations are f.o.b. Richmond, Calif.

Allied to Boost Capacity For Its 'Genetron' Line

Allied Chemical Corporation says it will get under way immediately on construction of its third refrigerant and aerosol propellant plant.

The facility will be built at the General Chemical Division's Elizabeth, N. J., works, where the company now produces sulfuric acid and maintains bulk storage facilities for its "Genetron" line of fluorinated hydrocarbon refrigerants and propellants.

Initial products: "Genetron 12" (dichlorodifluoromethane), "Genetron 11" (trichloro . . .) and "Genetron 22" (monochloro . . .). The plant will boost Allied's "Genetron" capacity by about one-third.

Bicycles Make Lead, Zinc Miners Go Round 'n Round

The domestic lead and zinc producing industry has been put in a quandary by the US Court of Customs & Patent Appeals.

It faces the possibility of having the President's proclamation of 1958 that put imports of lead and zinc into the US under a quota system declared null and void by the court—without any substitute relief measure ready to take its place.

This problem was raised last week in the wake of a decision by the Customs Appeals Court that cut short the President's claimed authority to modify recommendations of the Tariff Commission in "escape clause" cases.

The decision was handed down in the long-awaited bicycle case, and is considered to be one of the most important rulings affecting the President's powers under the reciprocal trade agreements program in recent years.

The Appeals Court sustained the protests of the importer in this case and upheld the ruling of the Customs Court that the President's proclamation was invalid.

In effect, the Appeals Court said that when the Tariff Commission investigates the matter of injury to American producers because of tariff concessions and recommends to the President that he take certain action to provide relief to the producers, the question reaches the President on a "take-it-or-leave-it basis."

Congress made no provision in the trade agreements law to modify recommendations of the Tariff Commission in "escape clause" cases, but on the contrary had specifically rejected amendments to the law that would have given him this authority, the Appeals Court ruled.

It is generally agreed among lawyers that the decision of the court throws legal doubt on the lead and zinc quota proclamation of the President.

It also raises a question as to the validity of two other earlier proclamations un-

—*Continued on page 51*

no matter how you look at it

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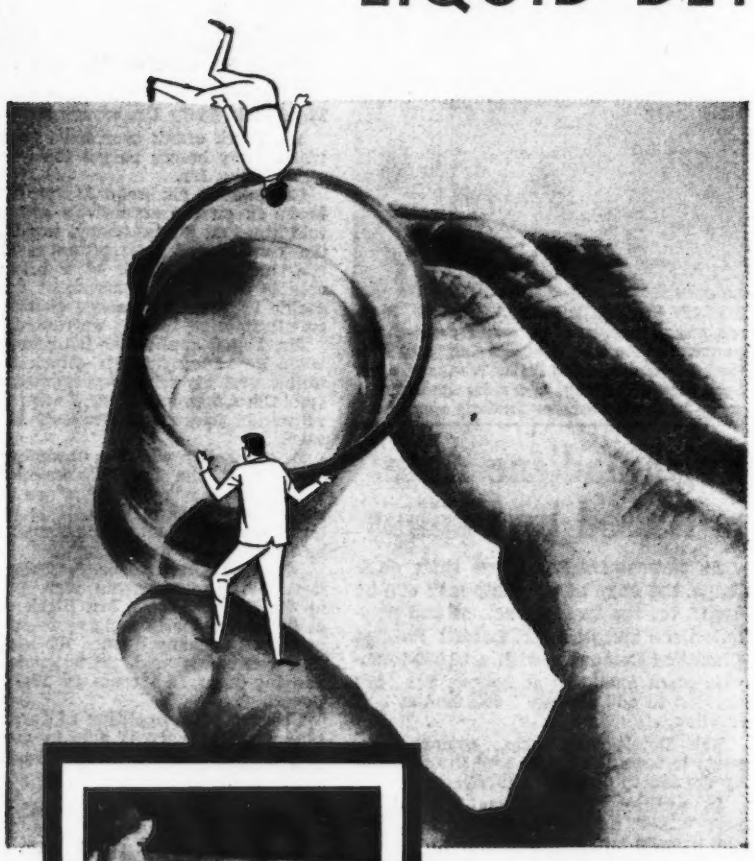

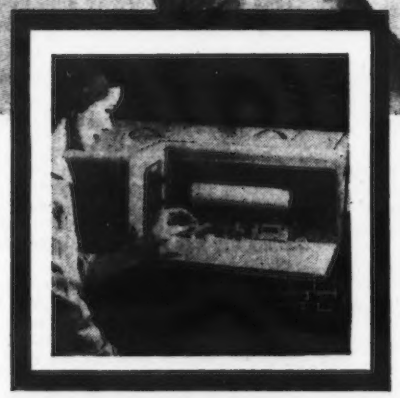

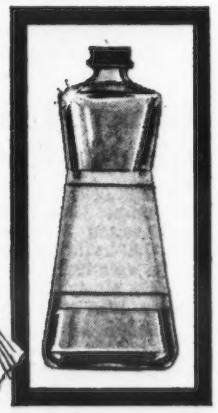

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Additive Law: Here's How

Puzzlers in the food additives amendment have been unravelled and legal verbiage hacked away in a new "how-to" booklet published by Manufacturing Chemists' Association.

"How to Proceed Under the Food Additives Amendment" is the first published section of a scheduled seven-part series.

Through a question-and-answer format, the manual first shows chemical makers how to answer the crucial question of whether or not a substance should be classified as a food additive.

Other sections map out the road to follow in getting through a petition for additives approval, filing objections to regulations and filing petitions to the US Circuit Court of Appeals.

A food additive is defined by law as any substance that voluntarily or otherwise is introduced into a food product. The MCA booklet directs particular attention to circumstances covered by "otherwise," such as when packaging materials migrate into food:

"If the food should contain traces of such substances as plastic materials migrating from a wrapper or metals dissolved from processing machinery or catalysts used to promote process reactions, such substances become food additives unless their safety has been established or a regulation exists prescribing the conditions under which they may be safely used."

If the amendment—which became effective on September 6, 1958—

—Continued on page 49

Tar Distillation Business Gains Made All Along the Chemical Front

Cokeoven and petroleum operators, pondering the latest Tariff Commission figures this week, are getting the official word on what they already know: Tar distillation business last year scored sharp advances all along the chemical front, even while production of tar itself continued on its downward trend. All light oil distillates recorded steep advances in both production and sales. Only soft spot in the light oil picture was in the value of naphthalene sales, which declined 6.4 percent owing to price reductions.

US production of all tars (from coal, oil and gas) in 1959 amounted to 669 million gallons, the commission reports. This was a decline of 4 percent from the 698 million gallons recorded for 1958.

Benzene Output Makes Big Gain

But output of industrial and specification grade benzene scored a whopping advance to 347 million gallons, up from 287 million in 1958.

Sales of benzene were 330 million gallons, valued at $96 million, up from 243 million gallons, valued at $79 million in '58.

Toluene production (including material in aviation fuel) jumped to 282 million gallons, up 18 percent from 240 million gallons in '58. Sales were 167 million gal-

—Continued on page 66

CHEMICAL DEVELOPMENT MANAGER: Dr. L. W. Seigle, appointed manager of chemical development for its National Aniline Division by Allied Chemical Corporation, New York.

Phillips Enlarges a Lab

The sales service laboratory of Phillips Chemical Company, Bartlesville, Okla., has been expanded by 4,000 square feet to provide additional equipment for study of the company's "Marlex" high-density resins.

Nalco Buys Chicago Site For Potential Expansion

Nalco Chemical Company has invested $1 million in land purchases and building conversion "as insurance for expected expansion."

Contracts were signed for the purchase of about ten acres and four buildings included in three parcels of land in Chicago's Clearing Industrial District. Nalco is headquartered in Chicago.

The acquisitions increase Nalco's land holdings in the clearing area to 25.1 acres. The four buildings involved will be modernized and converted into laboratory, office and producing facilities.

Japan's Petrochemical Growth, Ten-Fold in the Last Two Years, Spurs New Expansion Scheme

Petrochemical growth in Japan during the last two years has been ten-fold. As a result, the Ministry for Trade and Industry (MITI) has set up a second five-year skeleton plan in order to push expansion even harder. The first five-year plan inaugurated by MITI in 1955 was responsible for a doubling of petroleum refinery throughput capacity, as well as the fantastic 1,000 percent petrochemical increase.

The new MITI plan calls for the expenditure of 100 billion yen, and here's what's being done with it so far:

• Mitsubishi Petrochemical Company, Yokkaichi, is doubling its ethylene capacity and putting up new installations for benzene, toluene and xylene.

Petrochemical Output*

	1957	1959
Acetone (1)	1,204	8,213
Butadiene	...	1,237
Butanol (1)	1,159	5,617
Benzene	...	10,906
Ethylene	4,597	43,659
Ethylene Glycol	...	7,490
Ethylene Oxide	...	7,138
Isopropanol	821	3,441
Methyl Ethyl Ketone	143	3,121
Phenol	...	7,246
Propylene Glycol	...	323
Styrene	...	9,708
Terephthalic Acid	...	11,489
Toluene	...	27,779
Xylene	...	16,338
Aromatic Intermediates	...	10,704
Alkylphenol	...	125
Total	8,500 (2)	174,534

*In metric tons. (1) From petroleum only. (2) Includes unspecified miscellaneous quantities.

• Sumitomo Chemical Company is putting up new facilities for ethylene and acetylene at its Niihama location, to go on stream in 1961.

• Ube Industries, in connection with the refinery of Maruzen Oil Company in Matsuyama, will recover ethylene and propylene, and make polyethylene and polypropylene.

• Kyowa Fermentation Company this year will produce ethylene, acetylene, bu-

—Continued on page 66

Fiber Glass Affiliate Formed By Lowenstein, Cloth Maker

M. Lowenstein & Sons, Inc., New York, has established a new, independent affiliate in the glass fabric field. The big cloth maker has teamed up with two textile executives to form Clark-Schwebel Fiber Glass Corporation, which will weave, finish and market industrial and decorative fiber glass fabrics.

Raymond F. Clark and Jack P. Schwebel recently resigned from executive posts in the glass fiber operations of two of Lowenstein's competitors to join the new enterprise.

Until last month, Mr. Clark was executive vice-president of Hess Goldsmith & Co., glass fiber subsidiary of Burlington Industries, Inc. Mr. Schwebel until several weeks ago was sales manager of the industrial glass fabrics division of JP Stevens & Co.

HEADS CHLORIDE INSTITUTE: William E. Dickinson, executive vice-president and chief engineer, who on August 1 will become president of the Calcium Chloride Institute.

Surfactants Output, Sales Up 10 Percent

US production and sales of surface active agents were some 10 percent higher in 1959 than in '58, according to preliminary figures released by the Tariff Commission.

Output of surfactants last year amounted to 1.494 billion pounds—10.2 percent more than the production of 1.355 billion pounds in 1958.

Sales in 1959 amounted to 1.362 billion pounds, valued at $268 million, compared with 1.203 billion pounds, valued at $235 million, in '58.

The output of anionic materials in 1959

—Continued on page 31

Delaware Barrel Slates Polyethylene Drum Boost

Delaware Barrel & Drum Company Wilmington, Del., has started a $1 million expansion program for production and warehousing of molded polyethylene drums and tanks of five to 500 gallons.

The company recently bought the former plant of Pullman Company in Wilmington, consisting of 215,000 square feet of floor space. An additional five acres of ground for future expansion was purchased.

Association Meetings

American Chemical Society, national meeting, New York, September 11-16.

American Council of Independent Laboratories, annual meeting, Deauville hotel, Miami Beach, Fla., October 11-15.

American Institute of Chemical Engineers, May hotel, Tulsa, Okla., September 25-28.

American Pharmaceutical Association, annual meeting, Shoreham hotel, Washington, D. C., August 14-20.

American Soybean Association, joint annual meeting with National Soybean Processors Association, Peabody hotel, Memphis, Tenn., August 22-23.

American Tung Oil Association, annual convention, Edgewater Gulf hotel, Edgewater Park, Miss., September 28-29.

Armed Forces Chemical Association, annual meeting, Sheraton-Park hotel, Washington, D. C., September 15-16.

Association of Consulting Chemists & Chemical Engineers, annual meeting, Shelburne hotel, New York, October 25.

Canadian Agricultural Chemicals Association, annual meeting, Britannia hotel, Lake of Bays, Muskoka, Ontario, September 12-14.

Canadian Manufacturers of Chemical Specialties Association, annual meeting, Queen Elizabeth hotel, Montreal, Que., Canada, October 24-26.

Chemical Institute of Canada, western regional conference, Regina, Sask., September 8-10.

Chemical Market Research Association, Wentworth - by - the - Sea, Portsmouth, N. H., September 22-23; Pittsburgh Hilton hotel, Pittsburgh, Pa., November 9-10.

Drug, Chemical & Allied Trades Association, annual meeting, Sagamore hotel, Bolton Landing, Lake George, N. Y., September 15-18.

Electrochemical Society, Shamrock hotel, Houston, Tex., October 9-13.

Federation of Societies for Paint Technology, annual meeting, Sherman hotel, Chicago, October 31-November 2.

Gordon Research Conferences: separation and purification, Colby Junior College, New London, N. H.; organic reactions and processes, New Hampton School, New Hampton, N. H.; chemistry and metallurgy of semi-conductors, Kimball Union Academy, Meriden, N. H., July 25-29.

National Agricultural Chemicals Association, annual meeting, Del Coronado hotel, Coronado, Calif., September 27-29.

National Foreign Trade Council, national meeting, Waldorf-Astoria hotel, New York, November 14-16.

National Paint, Varnish & Lacquer Association, annual convention, Drake hotel, Chicago, October 27-29.

Parenteral Drug Association, Edgewater Beach hotel, Chicago, June 24; annual convention, Statler hotel, New York, October 19-21.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 12-14.

Salesmen's Association of the American Chemical Industry, annual sales clinic, Roosevelt hotel, New York, November 14.

Society of the Plastics Industry, New England section conference, Wentworth-by-the-Sea, Portsmouth, N. H., October 13-14.

Stanford Research Institute, symposium on chemical reactions in the lower and upper atmosphere, Mark Hopkins hotel, San Francisco, April 18-20, 1961.

Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, September 13.

Technical Association of the Pulp & Paper Industry, forest biology symposium, New Washington hotel, Seattle, Wash., August 24-27.

Toilet Goods Association, scientific section's winter meeting, Waldorf-Astoria hotel, New York November 30.

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Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, July 22 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde 99%, dms., c.l., works. lb. .12 - —
dms., l.c.l., works ..... lb. .13½- —
tanks, works ..... lb. .10 - —
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs., ton lots, frt. alld. lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms., any quantity lb. .79 - —
100-lb. dms., any quantity lb. .81 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs.10.45 - —
Acetic acid, glacial, syn., CP, dms., dlvd 100 lbs.22.00 -23.00
tech., dms., c.l. dlvd .... 100 lbs.13.75 - —
dms., l.c.l., dlvd ..... 100 lbs.13.25 - —
tanks, dlvd. ..... 100 lbs.10.00 - —
USP, cbys., dlvd ..... 100 lbs.31.00 -32.00
Acetic anhydride, aluminum ret. dms., c.l., dlvd. E lb. .16½- —
aluminum ret. dms., l.c.l., dlvd. E. lb. .18 - —
tanks, dlvd. E ..... lb. .14 - —
Acetoacetanilide, fib. dms., c.l., dlvd lb. .80 - —
fib. dms., l.c.l., dlvd ..... lb. .81 - —
Acetoacet-o-chloroanilide, fib. dms., c.l., dlvd lb. 1.35 - —
fib. dms., l.c.l., dlvd ..... lb. 1.36 - —
Acetoacet-o-toluidide, fib. dms., c.l., dlvd lb. .82 - —
fib. dms., l.c.l. dlvd ..... lb. .83 - —
Acetone, CP, dms., c.l., dlvd lb. .10½- —
dms., l.c.l., dlvd ..... lb. .12 - —
tanks, dlvd. ..... lb. .08 - —
Acetonitrile, dms., c.l., t.l., dlvd lb. .35 - —
dms., l.c.l., dlvd ..... lb. .36½- .37
tanks, dlvd. ..... lb. .32 - —
Acetophenetidin, USP, 200-lb. dms., 1,000 lbs., frt. alld lb. 1.22 - —
100-lb. dms., 1,000 lbs., frt. alld. lb. 1.24 - —
Acetophenone, cns., dms ..... lb. .42 - 1.30
Tech., dms., c.l., works ..... lb. .47 - —
dms., l.c.l., works ..... lb. .47¾- —
tanks, works ..... lb. .45 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.24 - —
dms., 5,000-lb. lots, same basis lb. 1.30 - 1.45
dms., smaller lots, same basis lb. 1.35 - 1.63
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .19 - —
cs., l.c.l., ex whse ..... lb. .24½- .30
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20, 40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP, 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb. higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver lb. .37 - —

ACIDS

Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .51 - —
dms., l.c.l. works ..... lb. .51¾- —
tanks, works ..... lb. .46 - —
Acrylamide, dms., t.l., f.o.b. works. lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., dlvd lb. .42½- —
dms., l.c.l., l.t.l., dlvd ..... lb. .43½- —
tanks, dlvd. ..... lb. .40 - —
tech., esterification, dms., t.l., f.o.b. shipping point lb. .41½- —
tanks, same basis ..... lb. .39 - —
tech., polymerization, dms., t.l., f.o.b. shipping point lb. .42½- —
tanks, same basis ..... lb. .40 - —
Acrylonitrile, dms., c.l., t.l., frt. equald lb. .26 - —
dms., l.c.l., l.t.l., frt. alld ..... lb. .27 - —
tanks, frt. equald ..... lb. .23 - —

Abies Siberica Oil—Ammonium Bicarbonate

Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., dlvd ..... lb. .32¼- —
bgs., l.c.l., dlvd ..... lb. .33 - —
Agar, USP, Kobe No. 1, strip, bls. lb. 2.65 - 2.75
powd., 30 mesh., fib., dms lb. 2.40 - —
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis ... lb.10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd ..... lb. 1.04 - —

ALCOHOLS

Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.

Aletris root, bgs ..... lb. 1.50 - 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., dlvd. E. of Rockies lb. 2.38 - —
Alkali blue, toner, litho flushed, 125-lb. bbls., same basis, lb. 1.35 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb.28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld. lb. 6.50 - 6.55
2½% dms. frt. alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. dlvd ..... lb. .32½- —
dms., l.c.l., dlvd ..... lb. .34 - —
tanks, dlvd. ..... lb. .30 - —
Allyl bromide 55-lb. cbys. 5,005 lbs. or more, works lb. 1.47 - —
55-lb. cbys., 1,045 to 4,950 lbs., works lb. 1.52 - —
55-lb. cbys., 55 to 990 lbs. works, lb. 1.57 - —
Allyl chloride, dms., c.l., dlvd ..... lb. .17½- —
dms., l.c.l., dlvd ..... lb. .19 - —
tanks, dlvd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 - 3.45
NF, bots. ..... lb. 3.00 - 3.30
sweet, USP, cns., dms ..... lb. .70 - 1.30

Abbreviations

Used in OPD Market Quotations

alld.	allowed	distr.	distributor	No.	number
amorph.	amorphous	djns.	demijohns	nom.	nominal
AMP	American melting point	dlvd.	delivered	o-	ortho
anhyd.	anhydrous	dms.	drums	ord.	ordinary
AOAC	Association of Official Agricultural Chemists	dom.	domestic	oz.	ounce
		E.	east	p-	para
a.p.a.	available phosphoric acid	e.p.	end point	Pac.	Pacific
		equald.	equalized	pf.	proof
approx.	approximately	exp.	expressed	phos.	phosphate
artif.	artificial	Ext.	external	photo.	photographic
ASTM	American Society for Testing Materials	F.	fahrenheit	pkgs.	packages
		ferment.	fermentation	powd.	powdered
Atl.	Atlantic	f.f.a.	free fatty acid	precip.	precipitated
Be.	Baume	f.f.c.	free from chlorine	prod.	producer
bbls.	barrels	fib.	fiber	pt.	point
bgs.	bags	f.o.b.	free on board	pulv.	pulverized
bls.	bales	f.p.a.	free of prussic acid	purif.	purified
bots.	bottles	frt.	freight	redist.	redistilled
b.p.	boiling point	gal.	gallon	refd.	refined
b.p.l.	bone phosphate of lime	gran.	granular	refy.	refinery
		grd.	ground	reg.	regular
b.r.	boiling range	i.&a.	iron and aluminum	resub.	resublimed
bxs.	boxes			ret.	returnable
C.	centigrade	l.b.p.	initial boiling point	SD	specially denatured
cbys.	carboys	imp.	imported	s.d.	single distilled
CD	completely denatured	incl.	included	S E.	southeast
		indust.	industrial	sec.	secondary
c.i.f.	cost, insurance, freight	kgs.	kegs	secs.	seconds
		l-	laevo	s.g.	specific gravity
cks.	casks	lacq.	lacquer	shipt.	shipment
c.l.	carlots	lb.	pound	soln.	solution
cns.	cans	l.c.l.	less carlots	s.u.	standard unit
coml.	commercial	l.t.l.	less truckload	syn.	synthetic
conc.	concentrated	liq.	liquid	tanks.	railroad tankcars
CP	chemically pure	mfrs.	manufacturers	tech.	technical
cps.	centipoises	m-	meta	tert-	tertiary
cryst.	crystalline	m.a.p.	mixed aniline point	t.l.	truckloads
cs.	cases	min.	minimum	t.w.	tankwagons
ctns.	cartons	m.p.	melting point	USP	U. S. Pharmacopoeia
cyls.	cylinders	N-	nitrogen		
d-	dextro	n-	normal	vis.	viscosity
dbl.	double	nat.	natural	VM&P	varnish makers & painters
denat.	denatured	neut.	neutral		
dest-dist.	destructively—distilled	NF	National Formulary	W.	west
		NNR	New and Nonofficial Remedies	whse.	warehouse
dl-	dextro-laevo			w.w.	water-white
dist.	distilled				

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs. ..... lb. .30 - .35
powd., cs. ..... lb. .60 - .65
Curacao, kgs. ..... lb. .60 - .70
powd., kgs. ..... lb. .80 - —
Aloin, USP, bbls., dms., kgs ... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., works 100 lbs. 4.30 - —
Lump, dms., works ..... 100 lbs. 5.05 - —
Powd., dms., works ..... 100 lbs. 5.20 - —
USP, burnt., dms ..... lb. .20 - .21
hydrous, dms. ..... lb. .07¾- .08
Alum potassium, gran., bgs., works. 100 lbs. 4.55 - —
Lump, dms., works ..... 100 lbs. 5.30 - —
Powd., dms., works ..... 100 lbs. 5.45 - —
USP, burnt., dms ..... lb. .20 - .21
USP, hydrous, dms ..... lb. .07¾- .08
Alum, potash-chrome, dms ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .05¼- —
bgs., l.c.l., works ..... lb. .05½- .08¼
Aluminum acetate, basic soln., 24%, bbls., l.c.l. works lb. .14 - —
Aluminum chloride, coml., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works ... 100 lbs.21.00 - —
dms., l.c.l., works ..... 100 lbs.21.50 - —
Soln., 32° cbys., c.l., works .... lb. .0495- —
cbys., l.c.l., works ..... lb. .0570- .1095
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride, tech., anhyd., bgs., c.l., works lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c per lb. higher.
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs.11.00 - —
containers extra, l.c.l., works. 100 lbs.11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald lb. .0365- —
bgs., 20,000-40,000 lb. lots, same basis lb. .039 - —
bgs., 2,000-20,000 lb. lots, same basis lb. .049 - —
bulk, c.l., same basis ..... lb. .03¼- —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
Aluminum hydroxide, gel, pharmaceutical, 14-15% Al_2O_3, fib dms., works lb. .22 - —
9-9½% Al_2O_3, fib. dms., works. lb. .19 - —
fib. dms., contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb. ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste, lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder, lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms ..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c. per lb. for 100-lb. dm., 1½c. per lb. for 50-lb. dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c. per lb. for single shipment of 400 to 1,499 lbs. 2c. for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S., a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs. or more.
Aluminum resinate, precip., 3.4% Al, dms lb. .40¼- —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton.41.00 - —
bulk, c.l., same basis ..... ton.40.00 - —
lump, bgs., c.l., same basis ton.44.00 - —
iron-free, bgs., c.l. works, frt. equald. 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works ..... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
P-Aminoacetanilide, tech., paste, dms., frt. alld. lb. 1.57 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.50 - 1.75
Aminoazotoluene base, bbls., 100% basis lb. 1.03 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 - —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld. lb. 8.10 - —
p-Aminodiphenylamine, tech., solid, dms., frt. alld. lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., dlvd. lb. .475 - —
dms., l.c.l., dlvd ..... lb. .49 - —
tanks, dlvd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld. lb. .44 - —
dms., l.c.l., frt. alld ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots. lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. lb. 1.15 - —
Aminophylline, USP, 100-lb. dm., frt. alld lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald. E. of Rockies ton.88.00 - —
refrigeration, tanks, works, frt. equald. E. of Rockies ton.90.50 - —
Aqueous, 29.4%, tanks, works, anhyd. basis, E. of Rockies. ton.91.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l., works, frt. equald ..100 lbs. 8.25 - —
bgs., l.c.l., same basis ..100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, fib. dms. ton lots, works lb. 1.00 - —
fib dms. 1,000-lb. lots, works. lb. 1.05 - —
Ammonium biborate, gran., dms., c.l., works ton.325 - —
dms., ton lots, ex whse. 100 lbs.20.40 - —
dms., smaller lots, ex whse. 100 lbs.21.15 - —
Ammonium bicarbonate, dom., dms., c.l., works ..100 lbs. 7.00 - —
dms., l.c.l., works ..... 100 lbs. 9.00 - —

Ammonium bichromate, dms., works. lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., dms., c.l., t.l., frt. equald lb. .44 - —
dms., l.c.l., same basis .... lb. .46 - —
Ammonium carbonate, USP, lump, dms., c.l. lb. .15½- —
Ammonium chloride, white, tech., fine gran., bgs., c.l., works. 100 lbs. 6.00 - —
bgs., l.c.l., works 100 lbs. 8.00 - 8.45
USP, gran., 250-lb. dm lb. .17¼- —
Ammonium citrate, dibasic, 250-lb. dm, f.o.b. works lb. .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm., f.o.b. works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous).
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.26 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld. lb. .20½- —
dms., t.t.l., frt. alld lb .21½- —
tanks, frt. alld lb. .19½- —
Ammonium lignin sulfonate, bgs., c.l., works 100 lbs. 3.25 - —
bgs., l.c.l., works 100 lbs. 3.40 - 3.65
Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400- lb. dms., 15,000-lbs. works. lb. 1.22 - —
400-lb. dms., 2,000-lb. contracts, works lb. 1.23 - —
400-lb. dms., works lb. 1.24 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.68.00 - —
with dolomite, 20.5% N, bgs., c.l., Hopewell, Va. ton.48.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point, frt. equald to $3 ton base price ton.68.00 - —
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b. works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.14.23 - —
bgs., smaller lots, ex whse. 100 lbs.15.48 -17.48
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —
Ammonium silicofluoride, dms., works lb. .12¼- .13¾
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works lb. .20½- .27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
Ammonium sulfate, standard, gran., purif., c.l., 100-lb. bgs., f.o.b. works lb. .08½- —
Large granular, bulk, c.l., works. ton.35.00 - —
bgs., c.l., works ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., t.t.l., works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms., l.c.l., works lb. .22 - .26
Tech, soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, coml., 55-gal. dms., ton lots, 100% basis lb. 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic, dms lb. 4.50 - 6.00
d-Amphetamine phosphate, fib. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb. 4.20 - 5.60
d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.60
Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
Amyl acetate, ex pentane, reg., dms., c.l., dlvd lb. .19 - —
dms., l.c.l., dlvd. lb. .21½- —
tanks, dlvd. lb. .16½- —
tech., dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Amyl acetate, syn., oxo process, dms., c.l., dlvd lb. .19 - —
dms., c.l., dlvd. lb. .20½- —
tanks, dlvd. lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld lb. .20½- —
tanks, frt. alld. lb. .16½- —
Amyl alcohol, primary, dms., c.l., frt. alld lb. .19¾- .20¼
dms., l.c.l. frt. alld. lb. .21¼- .21¾
tanks, frt. alld. lb. .17¼- .17¾
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld. E. lb. .14½- —
Amyl alcohol, 1-pentanol (syn. normal), dms., c.l., works lb. .41½- —
dms., l.c.l., works lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works lb. .70 - —
tanks, works lb. .60 - —
Amyl n-butyrate, dms. lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .26¾- —
dms., l.c.l., works lb. .27¾- —
Amyl salicylate, cns., dms. lb. .71 - —
Amyris oil, dms. lb. 1.65 - 2.05
Anethol, tech., dms. lb. .80 - .92
USP, cns., dms. lb. 1.05 - —
Angelica root, bls lb. .85 - .90
Angelica root oil, bots lb.120.00 -140.00
Angelica seed oil, bots lb.120.00 -130.00
Aniline dms., c.l., frt. alld lb. .20 - —
dms., l.c.l., frt. alld. lb. .21 - —
tanks, frt. alld. lb. .18 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l., t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis lb. .35 - —
Anise oil, USP, dms. lb. 1.75 - 3.00
Anise seed, Mexican, bgs. lb. .16 - —
Spanish, bgs. lb. .16½- —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis lb. .82 - —
tanks, same basis lb. .78 - —
p-Anisidine, dms., works lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5%, bbls., c.l., frt alld lb. .83 - —
bbls., l.c.l., same basis lb. .86 - —
Electrical grade, bbls., l.c.l., same basis lb. 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .29 - —
cs., c.l., mines lb. .29½- —
Antimony oxide, bgs., c.l., frt. alld. lb. .26½- —
bgs., l.c.l., frt. alld. lb. .28 - —
Prices of antimony oxide are 2% higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd. lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .41 - —
pails, l.c.l., works lb. .43 - —
Antimony-potassium tartrate, tech., powd., 250-lb., dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb. dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms. lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .27 - —
USP, powd., bbls. lb. .31 - .34
Areca nuts, powd., bbls. lb. .13 - —
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine, free base, dms., 10-kilo lots or more kilo.90.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.60.00 - —
l-Arginine monohydrochloride, dms., 10-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. .75 - —
Aromatic petroleum solvents (see Solvent Naphths, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works lb. .0.31 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb. .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. lb. 2.85 - —
Asafetida gum, cns lb. .36 - .40
Powd., bbls., dms lb. .75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF, c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF, c.l. (30 tons), mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher.
Ascorbic acid, USP, dms., 100-kilos. kilo. 7.35 - —
dms., less than 100-kilos kilo.7.75 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.40.00 - —
ex-whse, N. Y., N. J. ton.86.50 - —
seconds, 300°-390°F. fusing pt., bgs., c.l., mines ton.35.00 - —
select, 350°F. fusing pt., bgs., c.l., mines ton.41.00 - —
270°-295°F. fusing pt., bgs., c.l., mines ton40.00 - —
Manjak No. 10 crude, dms., works. lb. .07 - —

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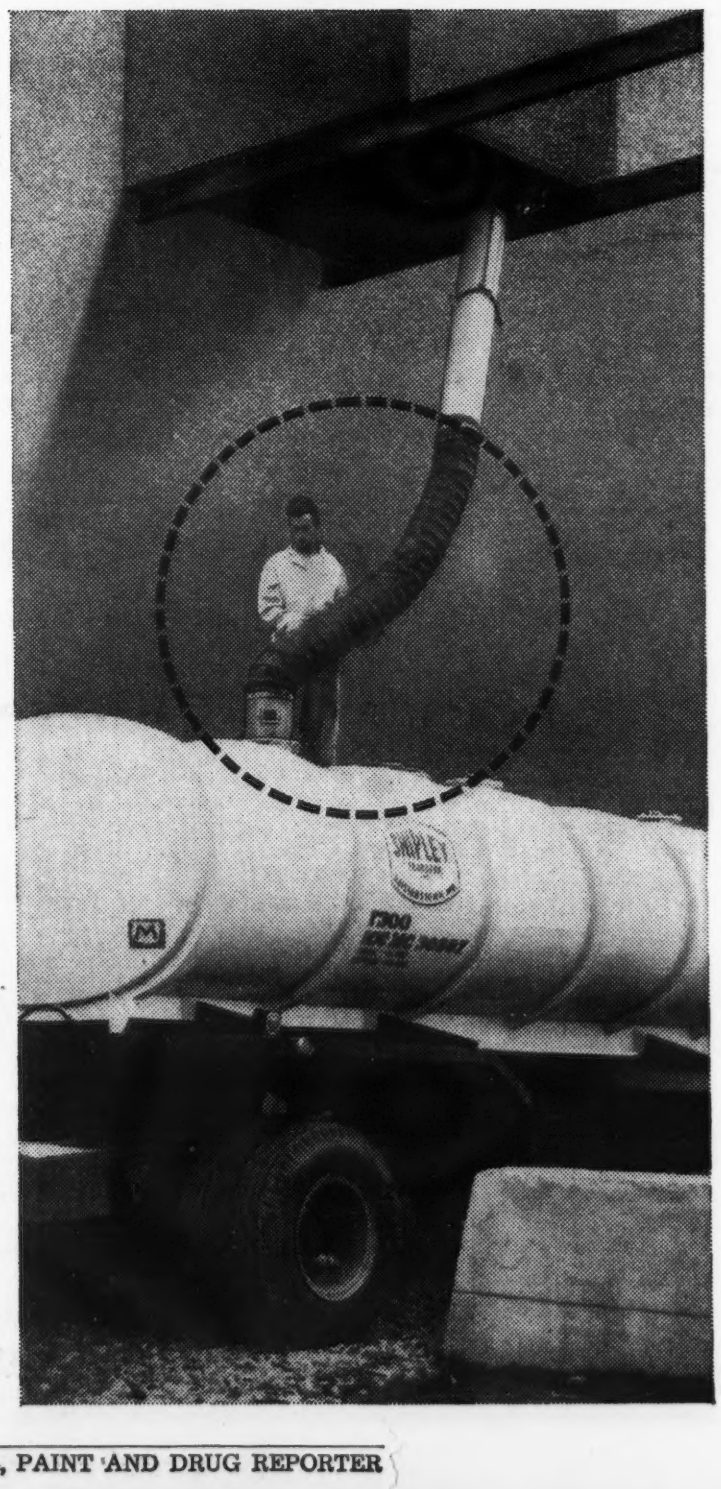
Contamination by air can destroy the purity and reactivity we take such care to produce in Solvay® Anhydrous Aluminum Chloride. So, from production to packaging we protect it from atmospheric moisture. An example of this is the airtight chute (circled) used in loading the Solvay-designed truck for bulk shipments. Similar precautions are taken in filling the various sizes of steel drum packages to assure product quality and safe handling.

This care continues right into the customer's plant . . . through Solvay Technical Service that helps plan handling procedures and bulk storage systems. For further information, including the range of screen sizes, mail the coupon.



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☐ Literature

NAME_____
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COMPANY_____
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CITY_____ ZONE____ STATE_____

Asphalt, petroleum, cut-back, tanks, tankwagon, refy.	gal.	.09½- —
emulsion, tanks, tankwagon, refy.	gal.	.09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy.	ton	21.00 - —
85-300 penetration, tanks, tankwagon, refy.	ton	20.00 - —
Aspirin (see Acetylsalicylic Acid).		
Atropine, NF, tins	oz.	5.75 - 7.50
Atropine sulfate, USP, bots.	oz.	5.25 - 5.75
Azelaic acid, bgs., c.l., dlvd.	lb.	.40 - —
bgs., ton lots, same basis	lb.	.41 - —

B

Bacitracin, bulk, 1,000,000,000 or more units	50,000 units.	.65 - —
less than 1,000,000,000 units.	50,000 units.	.70 - —
Balm of Gilead buds, dried, bgs.	lb.	1.25 - 1.35
Barberry root bark, bgs.	lb.	1.00 - 1.10
Barbital, NF, 100-lb. dms., f.o.b. works	lb.	4.50 - —
Barbital sodium, NF, 100-lb. dms.	lb.	4.75 - —
Barium carbonate, precip., bgs., c.l., works	ton.	111.50 - —
bgs., smaller lots, works	ton.	126.50 - —
Barium chlorate, dms., works	lb.	.32 - .41
Barium chloride, anhyd., bgs., c.l., works	ton.	176.00 - —
bgs., l.c.l., works	ton.	196.00 - —
NF, cryst., dms., 400-lbs., works.	lb.	.23 - —
Tech., cryst., bgs., c.l., works.	100 lbs.	7.00 - —
bgs., l.c.l., works	100 lbs.	8.00 - —
Barium chromate, bgs., frt. equald.	lb.	.38 - —
Barium dioxide (see Barium peroxide).		
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald.	ton.	208.00 - —
bgs., l.c.l., l.t.l., frt. equald.	ton.	218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald.	100 lbs.	11.25 - —
bgs., l.c.l., frt. equald.	100 lbs.	11.75 - —
Barium monoxide (see Barium oxide).		
Barium nitrate, bbls., c.l., t.l., dlvd.	lb.	.16 - —
bbls., l.c.l., l.t.l., dlvd.	lb.	.17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald.	ton	275.00 - —
dms., l.c.l., l.t.l., frt. equald.	ton.	285.00 - —
Barium peroxide, dms., frt. equald.	lb	.20 - —
Barium stearate, ctns., c.l., frt. alld.	lb.	.41 - —
ctns., l.c.l. same basis	lb.	.42 - .46
Barium sulfate, tech. (see Barytes and blanc fixe).		
Barium sulfate, X-ray, 100-lb. dm.	lb.	.19½- —
Barium sulfide, dms., c.l., works.	ton.	100.00 - —
dms., l.c.l., works	ton.	110.00 - —
Barytes, southern, off-color, bgs., mines	ton.	30.00 - —
95-75%, bgs., mines	ton.	30.00 - —
white, water-grd., paper bgs., c.l., St. Louis	ton.	60.00 -60.25
paper bgs., ex whse., New York	ton.	84.85 - —
Battery acid, cbys., c.l., works E.	100 lbs.	2.35 - —
cbys, l.c.l., works, E	100 lbs.	2.65 -10.95
Bauxite, bulk, mines	ton.	7.00 -10.00
Bay oil, NF, Puerto Rican, 50-55%, cns.	lb.	2.40 - 2.70
55-60%, cns.	lb.	2.55 - —
NF, West Indian, 50-55%, cns. dms.	lb.	2.50 - —
Bayberry wax, bgs	lb.	.45 - .50
Beeswax, crude, African bgs.	lb.	.50 - .52
Brazilian, bgs.	lb.	.55 - .56
Central American, bgs.	lb.	.53 - —
Chilean, bgs.	lb.	.56 - —
Refd., USP, bleached white, bricks, 100-lb. ctns.	lb.	.69 - .71
white, slabs, 100-lb. ctns	lb.	.68 - .70
yellow, bricks, 100-lb. ctns.	lb.	.59 - .61
yellow, slabs, 100-lb. ctns.	lb.	.58 - .60
Belladonna leaf, bls.	lb.	.24 - .26
Belladonna root, bls.	lb.	.28 - .35
Bentonite, dom, 200 mesh, bgs., c.l., mines	ton.	14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse.	ton.	95.20 - —
bgs., 1-ton lots, ex whse.	ton.	99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton lots, ex whse.	ton.	93.40 - —
bgs., 1-ton lots, ex whse	ton.	97.16 - —
Benzal chloride, cbys., works.	lb.	.44 - —
Benzaldehyde, NF, dms.	lb.	.80 - 1.05
Tech., dms., c.l., t.l.	lb.	.47 - —
dms., l.c.l.	lb.	.48 - —
Benzene, pure or nitration, tanks, works:		
Bethlehem, Pa	gal.	.34 - —
Birmingham district	gal.	.34 - —
Chicago district	gal.	.34 - —
Cleveland district	gal.	.34 - —
Geneva, Utah	gal.	.34 - —
Houston, Tex.	gal.	.34 - .40
Johnstown, Pa.	gal.	.34 - —
Lackawanna, N. Y.	gal.	.34 - —
Lone Star, Tex.	gal.	.34 - —
Lorain, Ohio	gal.	.34 - —
Middletown, Ohio	gal.	.34 - —
Mennequa, Colo.	gal.	.34 - —
Philadelphia district	gal.	.34 - —
Pittsburgh district	gal.	.34 - —
Sparrows Point, Md.	gal.	.34 - —
Syracuse, N. Y.	gla.	.34 - —
Terre Haute, Ind.	gal.	.34 - —
Youngstown, Ohio	gal.	.34 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).		
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-	unit.	.0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-	unit.	.0065- —
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd. gamma-	unit.	.0075- —
bgs., c.l., t.l., direct sale, f.o.b. works gamma-	unit.	.0056- —
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis.	lb.	1.19 - —
bbls., l.c.l., same basis	lb.	1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis	lb.	1.21 - —
Benzidine yellow, AAA, bbls., dlvd.	lb.	2.20 - —
AAOT, bbls., dlvd.	lb.	2.55 - —
Lightfast, bbls., dlvd.	lb.	3.40 - —
Benzocaine, dms., 100-lbs., frt. alld.	lb.	3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld.	lb.	.25 - .37
dms., l.t.l., same basis	lb.	.29 - .41
tanks, same basis	lb.	.21 - —
USP, bbls., dms., ton lots.	lb.	.48 - —
bbls., dms., 1,000-lb lots.	lb.	.50 - —

BENZOL

Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs.	lb.	.32 - —
Benzophenone, dms.	lb.	1.40 - 1.65
Benzotriazole, tech., dms., 1,000-lb. lots, works.	lb.	2.25 - —
Benzotrichloride, cbys., 1,000-lb. lots or more, frt. equald.	lb.	.21 - —
cbys., smaller lots, frt. equald.	lb.	.23 - —
Benzoyl chloride, cbys., dms., c.l., works, frt. equald.	lb.	.22 - —
cbys., l.c.l., same basis	lb.	.23 - —
tanktrucks, dlvd. Metropolitan area	lb.	.21 - —
Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works	lb.	.98 - 1.08
Benzyl acetate, f.f.c., cns., dms.	lb.	.54 - —
Benzyl alcohol, NF, dms.	lb.	.54 - —
Tech., dms., dlvd.	lb.	.47½- .65
Benzyl benzoate, USP, 40-lb. dms	lb.	.64 - —
Benzyl chloride, tech., cbys., dms., c.l., works, frt. equald.	lb.	.22½- .25½
cbys., dms., l.c.l., same basis	lb.	.23½- .25½
tanktrucks, dlvd. Metropolitan area	lb.	.21 - —

A 2½c. differential is quoted on benzyl chloride in 5-gal. cbys. In steel dms. prices are ½c. lower.

Benzyl cinnamate, cns.	lb.	3.30 - 3.60
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld.	lb.	1.25 - —
12-49 dms., same basis	lb.	1.35 - —
1-11 dms., same basis	lb.	1.90 - —
Benzyl formate, cns.	lb.	1.85 - 2.10
Benzyl isoeugenol, cns.	lb.	9.25 - —
Benzyl propionate, bots.	lb.	1.35 - 1.65
Benzyl salicylate, bots.	lb.	1.50 - 1.85
Benzylidine acetone, bots.	lb.	1.75 - 1.80
Benzylidine chloride (see Benzal chloride).		
Berberine bisulfate, cns.	lb.	56.50 - —
Berberine hydrochloride, bots.	lb.	56.50 - —
Bergamot oil, nat., NF, Italian, cns.	lb.	11.00 -12.00

Betagammapicoline (see b-g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphthol).
Betanaphthylamine (see b-Naphthylamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).

Biotin, cryst., bots.	gram.	10.00 - —
Biphenyl (see Diphenyl).		
Birchtar oil, crude, cns.	lb.	1.50 - 1.90
Rectified, cns.	lb.	1.75 - 2.00
Bismuth chloride, jars	lb.	5.11 - —
Bismuth hydroxide, dms.	lb.	4.60 - 4.65
Bismuth metal, bxs., ton lots	lb.	2.25 - —
Bismuth nitrate, cryst., 250-lb. dm.	lb.	2.25 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works	lb.	4.42 - —
Bismuth subcarbonate, USP, 150-lb. dm	lb.	3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works	lb.	4.43 - —
Bismuth sublodide, fib dms.	lb.	5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b. works	lb.	3.15 - —
Bismuth subsalicylate, USP, 100-lb. dm., f.o.b. works	lb.	4.25 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works	lb.	4.40 - —
Bismuth-ammonium citrate, USP, powd., jars	lb.	4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld.	lb.	.29½- —
bgs., c.l., t.l., less than 70,000 lbs., same basis	lb.	.30 - —
bgs., l.c.l., same basis	lb.	.31 - —
Blackberry root bark, bls.	lb.	.50 - .55

BLACK PIGMENTS

Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works	ton.	160.00 - —
bgs., l.c.l., works	ton.	170.00 - —
bgs., l.c.l., New York whse.	ton.	200.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York	unit-ton.	5.50 - —
Bloodroot, bls.	lb.	.90 - 1.00

BLUE PIGMENTS

Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).		
Blue vitriol (see Copper sulfate).		
Bois de rose oil, Brazilian, dms.	lb.	2.10 - —
Peruvian, dms.	lb.	1.70 - —
BON acid maroons, pure, bbls.	lb.	1.75 - —
Resinated, bbls.	lb.	1.50 - —
Bone black, dms., c.l., frt. alld.	lb.	.1750- .2225
l.c.l., works	lb.	.1950- .2425

Pacific coast bone black prices 3¼c. per lb. higher.

Bonemeal, steamed, works, E.	ton.	80.00 - —
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).		

New performance data on Isophthalic-based coatings!

As a part of its continuing Isophthalic research program, Oronite employed a well-known independent laboratory to test a series of alkyd formulations. In almost every instance the Isophthalic-based products outperformed the competing commercial alkyds. Comparative data was secured in five categories.

Air-Drying Coatings. The Isophthalic-based alkyds showed faster air-drying without compromising other properties. Through-dry, hardness, toughness, adhesion and resistance to impact also favored the Isophthalic alkyds.

Furniture Lacquers. Improved hardness and sanding ease without sacrificing cold-checking resistance as well as other desirable properties—such as better adhesion, gloss and color retention, resistance to abrasion proved the Isophthalic alkyds superior.

Industrial Baking Enamels. Good results were also recorded in baking enamels, indicating how Oronite Isophthalic can solve important application and exposure problems.

White Baking Enamels. Properties such as pigment suspension, initial whiteness, resistance to water, alcohol, detergents and salt spray were significantly improved in the Isophthalic-based enamels.

Machinery and Maintenance Coatings. These comparison tests showed that Isophthalic alkyds performed extremely well in four-hour-drying machinery and maintenance coatings. Results are available to you for evaluation.

Write for complete test results. Address your inquiry to the executive offices of Oronite.

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6261

Bone phosphate, precip. (see Calcium phosphate, tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton.92.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 7.42 - —
bgs., smaller lots, same basis 100 lbs. 8.67 -10.67
bulk, c.l., works ton.83.00 - —
Borax, tech., gran., decahydrate, 99½%, bgs., c.l., works. ton.50.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 5.32 - —
bgs., smaller lots, same basis. 100 lbs. 6.57 - 8.57
bulk, c.l., works ton.43.50 - —
pentahydrate, 99½%, bgs., c.l., works ton.64.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.05 - —
bgs., smaller lots, same basis 100 lbs. 7.30 - 9.30
bulk, c.l., works ton.58.00 - —
USP, powd., bgs., c.l., works. ton.54.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 6.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.70 - 9.70
Bordeaux powder, tribasic, bgs., c.l., dlvd lb. .24 - —
bgs., l.c.l., same basis lb. .26 - —
Boric acid, tech., anhyd., 99.9%, bgs., c.l., works ton.335.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.19.62 - —
bgs., smaller lots, same basis. 100 lbs.20.87 -22.87
cryst., 99.9%, bgs., c.l., works. ton.163.50 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs.11.05 - —
bgs., smaller lots, same basis. 100 lbs.12.30 -14.30
Boric acid, tech., cryst., 99.9%, dms., c.l., works ton.188.50 - —
dms., ton lots, ex whse., New York or Chicago. 100 lbs.12.30 - —
bgs., smaller lots, same basis 100 lbs.13.05 - —
gran., 99.9%, bgs., c.l., works. ton.112.00 - —
bgs., ton lots, ex whse, New York or Chicago 100 lbs. 8.47 - —
bgs., smaller lots, same basis. ton.174.25 - —
dms., c.l., works ton.137.00 - —
dms., ton lots, ex whse, New York or Chicago 100 lbs. 9.72 - —
dms., smaller lots, same basis 100 lbs.10.47 - —
bulk, c.l., works ton.106.00 - —
powd., bgs., ton lots, ex whse., New York or Chicago. 100 lbs. 8.85 - —
bgs., smaller lots, same basis 100 lbs.10.10 -12.10
Boric acid, powd., dms., smaller lots, same basis 100 lbs.11.45 - —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb. 2.75 - —
Boron trichloride, CP, 1,800-lb. cyls., works lb. 1.25 - —
100-lb. cyls., works lb. 1.70 - —
Boron trifluoride, gas, cyls., t.l., works lb. .70 - —
cyls., l.t.l., works lb. .70 - —
Brimstone (see Sulfur).
Broenner's acid, bbls. lb. 1.53 - —
Bromine, purif., cs., c.l., t.l., dlvd. E. of Rockies lb. .32 - —
cs., l.c.l., same basis lb. .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 - —
ret. dms., l.c.l., same basis lb. .31 - .34
tanks, same basis lb. .21½ - —
Bromochloromethane, dms., c.l., frt. equald lb. .48 - —
dms., l.c.l., same basis lb. .50 - —
tanks, same basis lb. .47 - —
Bromoform, pharmaceutical grade, 100-lb. cbys lb 1.80 - 1.90
Bromstyrol, bots. lb. 5.35 5.70
Brucine, cns oz. Nominal.
Brucine sulfate, NF, cns. 1.45 - 1.75
Buchu leaves, bbls. lb. .70 .75

BROWN PIGMENTS

Brown pigment quotations are listed individually. For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.

Butadiene, refd. cyls., c.l., refy lb. .21 - —
cyls., l.c.l., refy. lb. .22 - —
tanks, dlvd. lb. .14½ - —
Butene-1, tanks, works lb. .0625 - —
Butene-2, tanks, works lb. .0570 - —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
Syn., dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., same basis lb. .18½ - —
tanks, same basis lb. .14½ - —
sec-Butyl acetate, syn., dms., c.l., dlvd. E lb. .14¾ - —
dms., l.c.l., same basis lb. .16¼ - —
tanks, same basis lb. .12¼ - —
n-Butyl acrylate, dms., c.l. or t.l., straight or mixed frt. alld. E lb. .42½ - —
dms., l.t.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Prices of n-Butyl acrylate are 1c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
n-Butyl alcohol, ferment, dms., c.l., frt. alld. lb. .18 - —
dms., l.c.l., frt. alld. lb. .19½ - —
tanks, frt. alld. lb. .15½ - —
n-Butyl alcohol, syn., dms., c.l., dlvd lb. .18 - —
dms., l.c.l., frt. alld lb. .19½ - —
tanks, dlvd. lb. .15½ - —
Sec-synthetic, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., dlvd. lb. .16½ - —
tanks, dlvd. lb. .12½ - —
n-Butyl alcohol, tert-synthetic, dms., c.l., frt. alld., dlvd E. lb. .16 - —
dms., l.c.l., same basis lb. .17½ - —
tanks, same basis lb. .13½ - —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb. .37½ - —
dms., l.c.l., works lb. .38¼ - —
n-Butyl ether, dms., c.l., works lb. .35¼ - —
dms., l.c.l., works lb. .36 - —
tanks, works lb. .33¼ - —
Butyl lactate, dms., c.l., frt. alld. E. Rockies lb. .42½ - —
dms., l.c.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —
Butyl laurate, dms., works lb. .37½ - —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 - —
dms., l.c.l., works lb. .55½ - —
Butyl oleate, refd., dms., l.c.l., works lb. .32 - —
Butyl phenylacetate, dms. lb. 4.50 - 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, dms., c.l., frt. alld. E. of Mississippi lb. .27¼ - —
dms., l.c.l., same basis lb. .28¼ - —
Butylamine (see Mono-, Di- and Tributylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 - —
dms., l.c.l., same basis lb. .47½ - —
tc., t.t., same basis lb. .45 - —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 - —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms., c.l., t.l., dlvd lb. .20½ - —
dms., l.c.l., l.t.l., f.o.b. works lb. .22 - —
tanks, dlvd. lb. .18 - —
p-tert-Butylphenol, bgs., c.l., dlvd., lb. .27½ - —
bgs., l.c.l., works lb. .28½ - —
Butyraldehyde, dms., c.l., dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½ - —
tanks, dlvd. lb. .19½ - —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 - —
dms., l.c.l., same basis lb. .34½ - —
tanks, same basis lb. .32½ - —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 - —
dms., l.c.l., same basis lb. .43 - —

C

Cacao butter (see Cocoa butter).
Cadmium CP red dark shade, bbls., frt. alld. E. of Rockies lb. 5.55 - —
Light shade, bbls., same basis lb. 4.65 - —
medium shade, bbls., same basis. lb. 5.30 - —
Medium light shade, bbls., same basis lb. 4.90 - —
Orange-red shade, bbls., same basis lb. 4.30 - —
Yellow, all shades, bbls., frt. alld. E. of Rockies lb. 2.85 - —
Cadmium iodide, 25-lb. fib. dms lb. 6.75 - 7.00
Cadmium metal, ingots or sticks, ton lots, cs., dlvd lb. 1.30 - —
Cadmium-mercury lithopone orange, deep shade, bbls., frt. alld E. of Rockies lb. 1.65 - —
Cadmium-mercury lithopone red, dark shade, bbls., same basis lb. 1.95 - —
Red, light shade, bbls., same basis. lb. 1.72 - —
Red, medium shade, bbls., same basis lb. 1.87 - —
Red, medium light shade, bbls., same basis lb. 1.80 - —
Red, maroon shade, bbls., same basis lb. 2.03 - —
Cadmium-selenide lithopone maroon, bbls., frt. alld E. of Rockies lb. 2.76 - —
Orange, bbls., same basis lb. 1.58 - —
Cadmium-selenide lithopone red, orange-red shade, bbls., same basis lb. 1.72 - —
Red, dark shade, bbls., same basis. lb. 2.56 - —
Red, light shade, bbls., same basis. lb. 1.88 - —
Red, medium shade, bbls., same basis lb. 2.00 - —
Red, medium-light shade, bbls., same basis lb. 2.23 - —
Calmium-selenide lithopone, yellow, all shades, bbls., frt. alld. E. of Rockies lb. 1.19 - —
Caffeine, NF, citrated, dms., 100-lb. lots or more lb. 2.70 - —
USP, nat., cryst., anhyd., dms., 100-lb lots or more lb. 2.10 - —
Caffeine, USP, nat., cryst., hydrous, dms., 100-lb. lots or more. lb. 1.96 - —
USP, syn., anhyd., dms., 100-lb. lots or more lb. 2.10 - —
cryst., hydrous, dms., 100-lb. lots or more lb. 1.96 - —
Cajuput oil, native, cns. lb. 1.75 2.00
Redist., USP, cns lb. 1.90 2.10
Calamine, USP, dms. lb. .34 —
Calamus oil, bots. lb.12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 - —
1-10 kilo lots gram. .55 - —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib. dms., 100 lbs. or more, frt. adjusted lb. 3.10 - —
Calcium arsenate, dealers, bgs., c.l., frt. alld lb. .09 - .09¼
bgs., l.c.l., same basis lb. .10 - .10½
Calcium bromide, NF, jars, 100 lbs. or more lb. .97 - —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton.149.00 - —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs., c.l., works ton.10.50 - —
Calcium carbonate, chalk, whiting, 325 mesh, bgs., c.l., works. ton.32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton.30.00 - —
10 to 20 microns, bgs., c.l., works ton.17.00 -18.00
precip., dense, bgs., c.l., works. ton.30.00 -38.50
bgs., l.c.l., works ton.45.00 -53.50
medium, bgs., c.l., works ton.38.00 - —
bgs., l.c.l., works ton.48.00 -53.00
surface treated, bgs., c.l., works. ton.42.00 -44.00
bgs., l.c.l., works ton.57.00 -59.00
ultrafine, bgs., c.l., works ton.117.50 -167.50
bgs., l.c.l., works ton.137.50 -187.50
Calcium chloride, conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald. ton.39.30 - —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton.32.00 - —
Liquor, 40%, tanks, frt. equald. ton.12.50 - —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton.37.00 - —
Purif., gran., dms. lb. .27 —
Calcium chloride, solid, 73-75%, dms., c.l., frt. equald ton.29.50 - —
dms., l.c.l., works, frt. equald. ton.36.00 -73.00
USP, gran., dms. lb. .32 - —
Calcium chromate, bgs., dlvd lb. .37 - —
Calcium cyanide, dms., c.l., dlvd, E. of Rockies lb. .20 - —
dms., l.c.l., same basis lb. .24 - .55
Calcium cyclamate, 100-lb. dms. lb. 1.95 - —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. .73½ - —
USP, powd., 100-lb. dm., ton lb. .66½ - —
Calcium hydride, lump, dms., works. lb. 2.20 - 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs.23.85 -25.60
100-lb. dms., same basis dm.33.30 -36.55
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 - —
Calcium iodide, jars lb. 4.52 - —
Calcium lactate, NF, dms., f.o.b. works lb. .43 - .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 - —
Calcium naphthenate, liq., 4% Ca., dms., frt. equald lb. .30 - —
Calcium pantothenate, USP, jars, 1 kilo or more kilo.35.00 - —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms. lb. 1.24 - 1.25
Calcium phosphate, dibasic, USP, bgs., c.l., frt. equald 100 lbs.16.00 - —
Dibasic, feed grade, 18½% P, bgs., c.l., t.l., frt. equald ton.86.00 - —
bgs., c.l., t.l., f.o.b. Texas City works ton.80.50 - —
bgs., l.c.l., frt. equald ton.96.00 - —
Dibasic, feed grade, 21% P., bgs., c.l., t.l., frt. equald ton.97.65 - —
bgs., l.c.l., frt. equald ton.107.65 - —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Calcium phosphate, monobasic, bgs., 10,000-lb. lots, frt. equald. 100 lbs. 7.45 - —
bgs., smaller lots, same basis. 100 lbs. 7.95 - —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 - —
bgs., l.c.l., frt. equald. 100 lbs.10.00 - —
Calcium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½ - —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more. f.o.b. warehouse N. Y lb. .39 - —
Calcium resinate, precip., dms., ton lots. frt. alld., works lb. .40¼ - —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 - —
bgs., l.c.l., works lb. .06½ - —
Calcium silicate paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 - —
ctns., l.c.l. lb. .40 - .44
Calcium sulfate (see Gypsum).
Calomel, NF, mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 - —
NF, mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 - —
Camphene, 46° m.p., dms. incl., c.l., works lb. .15 - —
dms. incl., l.c.l. same basis lb. .16½ - —
tanks, same basis lb. .12½ - —
Camphene chlorinated, 67-69% (see Toxaphene).
Camphor, monobromated, NF, dms., kgs lb. 3.63 - 3.70
Nat., USP, powd., cs., 100-lb. lots. lb. .60 - .65
tablets, 1-oz. cs. lb. .85 - .90
Nat., USP, gran., bbls., 2,000-lb. lots lb. .59 - —
Syn., tech., 1 bbl. or more lb. .48 - —
Syn., USP, gran., powd., bbls., 1,000-lb lots lb. .60 - —
bbls., smaller lots lb. .61 - —
tablets, ctns., 1,000-lb. lots. lb. .85 - —
ctns. 500-lb. lots lb. .86 - —
ctns., smaller lots lb. .87 - —
Camphor oil, sassafrassy, dms. lb. .35 - .55
White, dms. lb. .26 - .50
Cananga oil, native, cns. lb. 5.00 - 6.50
Rectified, cns. lb. 7.25 -10.00
Candelilla wax, crude, bgs. lb. .55 - .58
Refd., pure, bgs lb. .60 - .63
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. lb. 1.00 - —
powd., bgs. lb. 1.15 - —
Russian, bgs. lb. 2.00 - 2.15
powd., bgs. lb. 2.15 - 2.30
Capric acid, dms. lb. .32¼ - .34¾
tanks lb. .29¾ - —
Caprolactum monomer, bgs., c.l., t.l., f.o.b. works lb. .52 - —
bgs., l.c.l., l.t.l., same basis lb. .57 - —
tanks, same basis lb. .49 - —
Capryl alcohol, 85% dms., c.l., t.l., works lb. .19 - —
dms., l.t.l., same basis lb. .19½ - —
tanks, frt. equald. lb. .16½ - —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 - —
dms., l.c.l., f.o.b. works lb. .23 - —
tanks, f.o.b. works lb. .19½ - —
Caprylic acid, dms. lb 32¼ - .34¾
tanks lb. .29¾ - —
Capsicum (see Pepper red).
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 - —
NF, from African pepper, dms. lb. 4.50 - —
Caraway oil, NF, dms. lb. 3.15 - 3.40
Caraway seed, Danish, bgs. lb. .16 - —
Dutch, bgs. lb. .20½ - —
Polish, bgs. lb. .17¼ - —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 - —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 - —
bgs., c.l., works lb. .08½ - —
bgs., l.c.l., works lb. .16¼ - —
Furnace, fast extruding, bgs., c.l., works lb. .06¾ - —
ctns., l.c.l., whse. lb. .13½ - —
Carbon black, high abrasion, bulk, c.l., works lb. .07¼ - —
bgs., c.l., works lb. .07¾ - —
bgs. l.c.l., dlvd. or whse lb. .14½ - —
high modulus, bgs., c.l., works. lb. .06¼ - —
ctns., l.c.l., whse. lb. .13 - —
semi-reinforcing, bgs., c.l., works lb. .05¾ - —
bgs., ctns., l.c.l., whse. lb. .12½ - —
pigment, high color beads, ctns., c.l., works lb. .78 - —
ctns., l.c.l., dlvd. or whse lb. .87 - —
medium color, uncompressed, bgs., c.l., works lb. .14 - —
bgs., l.c.l., dlvd. or whse lb. .22½ - —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton.60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd. Metropolitan areas, E. ton.55.00 - —
Solid, bulk, wholesale, works ton.85.00 - —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 - —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 - —
5-gal. dms., less than 30 dms., same basis lb. .161 - —
tanks, dlvd. lb. .0545 - —
Carbon tetrachloride, CP, consumers, dms., c.l., frt. alld. lb. .12¾ - —
dms., l.c.l., frt. alld. lb. .15¼ - —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾ - —
dms., l.c.l., l.t.l., frt. alld. lb. .14¼ - —
tanks, frt. alld lb. .10¾ - .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb. 4.00 - 4.25
dms., smaller lots, works lb. 4.10 - 4.75
Cardamom oil, NF, bots. lb.39.00 -42.00
Cardamom seed, bleached "A" lb. 3.50 - —
Bleached "B" lb. 3.10 - —
Decorticated Alleppey, cs. lb. 2.30 - —
Guatemala, cs. lb. 3.05 - —
Green, Alleppey, bgs. lb. 2.15 - —
Ceylon, bgs. lb. 2.15 - —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb.16.80 - —
bulk, smaller lots, dlvd. lb.16.90 -17.30
Carnauba wax, chalky, bgs., ton lots lb. .73 - .74
North Country, No. 2, crude, bgs., ton lots lb. .82 - .84
refd., pure, ton lots lb. .91 - .92
North Country, No. 3, Ceara, ton lots lb. .74 - .75
Ceara, refd., pure, bgs., ton lots lb. .82 - .83
North Country, No. 3, Parnahyba, ton lots lb. .75 - .76
Parnahyba, refd., pure, bgs., ton lots lb. .83 - .84
Carnauba wax, No. 1, Ceara, yellow, bgs., ton lots lb. 1.02 - 1.03
Parnahyba, yellow, bgs., ton lots lb. 1.03 - 1.05
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½ - —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 - —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 - —
b-Carotene, in vegetable oil, sesame kilo.240.00 - —
solid suspension, 400,000 A units per gram, cns kilo.57.60 - —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns kilo.72.00 - —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns.
Carvol, bots. lb. 5.00 - 5.40
Cascara sagrada bark, bulk lb. .34 - .36
Casein, dom., edible, acid precip., 30 mesh., bgs., 10,000-lb. lots or more, works lb. .56 - —
edible, acid, precip., 80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 - —
Imp., inedible, acid-precip., gro., Argentine, bgs., c.l., ex-dock, Eastern seaports lb. .20¼ - .20½
New Zealand, bgs., c.l., same basis lb. .24 - —
Cashewnut shell, liquid, treated, dms., c.l., Newark, N. J. lb. .22 - —
dms., ton lots, same basis lb. .23 - —
dms., ton lots, same basis lb. .25 - —
Cassella acid, dms., frt. alld., 100% basis lb. 1.44 - 1.75
Cassia oil, redist., USP, cns. lb. 7.50 - 9.00
Cassia, Padang, "A," bls. lb. .30 - —
"B," bls. lb. .29 - —
"C," bls. lb. .28 - —
Korintje "A," bls. lb. .34 - —
"B," bls. lb. .30 - —
"C," bls. lb. .30 - —
Castor oil, dom., blown, dms., c.l. lb. .2550 - —
dms., l.c.l. lb. .2650 - —
Castor oil, dom., dehydrated, bodied, dms., c.l lb. .2700 - —
dms., l.c.l. lb. .2850 - —
tanks lb. .2500 - —
dehydrated, unbodied, dms., c.l. lb. .2500 - —
dms., l.c.l. lb. .2660 - —
tanks lb. .2360 - —
hydrogenated, bgs., c.l. lb. .2450 - —
bgs., ton lots lb. .2850 - —
bgs., l.c.l., dlvd. lb. .3050 - —
No. 1, dms., c.l. lb. .2150 - —
dms., l.c.l. lb. .2300 - —
tanks lb. .2000 - —
No. 3, tech., dms., c.l. lb. .2125 - —
dms., c.l., lb. .2225 - —
tanks lb. .1925 - —
Refd. deod., dms., c.l. lb. .2650 - —
dms., l.c.l. lb. .2750 - —
tanks lb. .2450 - —
USP, dms., c.l. lb. .2350 - —
dms., l.c.l. lb. .2450 - —
tanks lb. .2150 - —
Imported, No. 1, Braz., tanks lb. .18¾ - .19
Sulfonated, 50%, dms., works lb. .17½ - .19½
75%, dms., works lb. .19 - .19½
Castor oil acids, dehydrated, dms. lb. .44¼ - .46¼
Split, dms. lb. .37¼ - .38¼
Castor pomace, bgs., c.l., works ton.35.00 - —
Castoreum nat., cns. lb. 5.25 - —
Syn., cns. lb. 9.00 - —
Catechol, CP, cryst., fib., dms., works lb. 2.17½ - —
Resub., dms., works lb. 4.29½ - —
Catnip leaves, Southern, bls. lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 3.25 - 3.50
Cedarwood oil, cns., dms. lb. .77 - .85
Celery seed, French, bgs. lb. .33 - —
Indian, bgs. lb. .19 - —
Cellulose acetate, flake, powd., bgs., t.l., dlvd. E lb. .36 - .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs., dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E lb. .545 - .555
50% butyryl content, bgs., dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works, frt. alld. lb. .57 - —
bgs., smaller lots, same basis lb. .59 - —
Cerium hydrate 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 - —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 - —
Cerium oxalate (see Rare earth oxalate)
Cerium oxide, optical grade, bgs., 50-lb. lots or more, dlvd. lb. 1.85 - 1.90
bgs., smaller lots, dlvd. lb. 2.15 - —

Cetyl alcohol, NF, fib. cns., c.l., t.l., dlvd. E. lb. .41½- —
fib. cns., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .39 - —
Extra, cns., c.l., t.l., dlvd. E. lb. .48½- —
fib. cns., l.c.l., same basis lb. .50½- —
tanks, same basis lb. .46 - —
Chalk (see Calcium carbonate).
Chamomile flowers, Hungarian, bls. lb. .90 - 1.00
Roman, cs. lb. 1.50 - 1.75
Chamomile oil, blue Hungarian, bots. lb. 350.00 - —
Charcoal, activated, NF, fib. dms., c.l., works lb. .25 - .32
fib. dms., 5-ton lots, works lb. .26½- .32½
fib. dms., smaller lots, works lb. .27 - .50
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal, hardwood, lump, bulk, c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 80.00 - —
5-lb. paper bgs., c.l., same basis ton 106.00 - —
20-lb. paper bgs., c.l., f.o.b. plant, ton 90.00 - —
40-lb. paper bgs. c.l., same basis ton 86.00 - —
Chenopodium oil, NF, cns. lb. 4.25 - 5.00
Chicago acid, paste, bbls., frt. alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral, tech., 94% min., dms., c.l., works lb. .23 - —
dms., l.c.l., works lb. .24 - —
tanks, multiple units, 5 cars, dms., l.c.l., works lb. .21 - —
Chloral hydrate, USP, jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb. lots lb. 1.03 - —
jars, 100-lb. lots or less lb. 1.05 - —
Chlordan, agricultural, dms., c.l., frt. alld. lb. .65 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld. lb. .66 - —
Clarified, dms., c.l., frt. alld lb. .69 - —
dms., l.c.l., 5,000-10,000-lb. lots, frt. alld. lb. .70 - —
Chlorinated paraffin, 42%, dms., c.l., frt. alld. lb. .16¾- —
dms., l.c.l., 10 dms. or more, same basis lb. .17¼- —
70%, dms., c.l., same basis lb. .18½- —
dms., l.c.l., 10 dms. or more, same basis lb. .19½- —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l., works lb. .60 - —
ctns., l.c.l., works lb. .61 - —
125, 1,000 cps., ctns., c.l., works. lb. .70 - —
ctns., l.c.l., works lb. .71 - —
Chlorine, liq., cyls., c.l., works, frt. equald. lb. .11 - —
cyls., l.c.l., Metropolitan area lb. .12½- .13¾
tanks, single units, works, frt. equald. 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis. 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis. 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis% 100 lbs. 6.25 - 7.25
Chloroacetic acid, mono, flake, 99%, purif., dms., c.l lb. .23½- .25½
dms., l.c.l. lb. .24½- —
tech., flake, 96-97%, dms., c.l., dms., l.c.l., frt. equald lb. .20 - —
frt. equald lb. .19 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb. 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb. 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms., frt. alld. lb. .66 - —
m-Chloroaniline, dms., c.l., frt. alld. lb. .75 - —
dms., l.c.l., same basis lb. .77 - —
tanks, same basis lb. .73 - —
o-Chloroaniline, dms., c.l., frt. alld. lb. .52 - —
dms., l.c.l., same basis lb. .54 - —
tanks, same basis lb. .50 - —
p-Chloroaniline, dms., c.l., frt. alld. lb. .77 - —
dms., l.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb. 1.05 - —
dms., l.t.l., same basis lb. 1.20 - —
p-Chlorobenzaldehyde, dms., l.c.l., works lb. 1.95 - —
o-Chlorobenzoic acid, fib. dms., t.l., works lb. 1.10 - —
fib. dms., smaller lots, works lb. 1.25 - —
p-Chlorobenzoic acid, fib. dms., 2,000-lbs. or more, works. lb. 2.25 - —
fib. dms., less than 2,000-lbs., same basis lb. 2.30 - —
Chloroform, tech., dms., c.l., dlvd. E. lb. .18 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .17 - —
USP, dms., c.l., dlvd. lb. .27 - —
dms., l.c.l., dlvd. lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .81 - —
Powd., dlvd. E., 100% basis lb. .86½- —
4-Chloro-2-nitroaniline, powd., dlvd. E. lb. .86 - —
4-Chloro-2-nitrophenol, tech., paste, dms., frt. alld. lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld. lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld. lb. .17 - —
o-Chlorophenol, dms., c.l., frt. equald. lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt. equald. lb. .37 - —
dms., l.c.l., same basis lb. .38 - —
Chloropicrin, coml., cyls., 180 lbs., frt. alld. lb. 1.07 - —
cyls., 100 lbs., same basis lb. 1.08 - —
cyls., 50 lbs., same basis lb. 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald. lb. .0465- —
dms., l.c.l., frt. equald lb. .0515- —
tanks, frt. equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms.½c. per lb. higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms., l.c.l., l.t.l., same basis lb. .38 - —
Choline bitartrate, fib. dms., frt. adjusted kilo 2.75 - 3.00
Choline chloride, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Choline dihydrogen citrate, fib. dms., frt. adjusted kilo. 2.75 - 3.00
Chrome green, CP, dark, light, medium blue content, 1-15%, bbls., dlvd. E. of Rockies. lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
medium blue content, 41-45%, bbls., same basis lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
Reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W. of Rockies.

Chrome orange, CP, bbls., dlvd. E. of Rockies lb. .28 - —
Chrome orange prices 1c. higher W. of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .25 - —
Chrome yellow price 1c. higher W. of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½- —
dms., l.c.l., dlvd. N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works. lb. .10 - —
Chromium fluoride, bbls., works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib. dms., c.l., frt. alld. lb. 1.20 - —
Pure, bgs., c.l., frt. alld lb. .44½- —
bgs., l.c.l., same basis lb. .45¼- —
Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs. lb. .25 - —
NF, yellow, broken, bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 - 3.50
Cinnamic alcohol, bots. lb. 1.60 - 1.75
Cinnamic aldehyde, dms. lb. .80 - 1.00
Cinnamon, Ceylon, No. 2, bgs. lb. .56 - —
Ceylon, No. "0000," bgs. lb. .76 - —
Cinnamon bark oil, bots lb. 36.00 - 70.00
Cinnamon leaf oil, crude, dms. lb. 1.60 - 2.00
USP, (Cassia), cns., dms. lb. 8.50 - 13.50
Citral, CP, bots. lb. 3.60 - 4.00
Extra, bots. lb. 3.60 - 5.00
Syn., dms. lb. 7.25 - 7.40
Citric acid, USP, anhyd., fine gran., bgs., dms., c.l. lb. .29½- .30
bgs., dms., 10,000-lb. lots, 1 shipt. lb. .30 - .30½
bgs., dms., smaller lots lb. .30½- .31

Citric acid, USP, hydrous, fine gran., bgs., dms., c.l. lb. .27½- .28
bgs., dms., 10,000-lb. lots, 1 shipt. lb. .28 - .28½
bgs., dms., smaller lots lb. .29 - .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Ceylon, dms lb. 1.00 - —
Java-type, dms. lb. .92 - —
Citronellal, bots., dms lb. 1.60 - 2.10
Citronellol, bots., dms. lb. 1.90 - 2.50
Citronellol, synthetic, dms lb. 1.70 - —
Civet, artif., bots lb. 13.75 - 15.00
Nat., bots. oz. 8.50 - 15.00
Clay, ball., dom., airfloated, bgs., c.l., Tenn. ton 17.50 - 21.50
crushed, shed moisture, bulk, c.l., Tenn. ton 8.00 - 11.00
imp., airfloated, bgs., c.l., Atl. port net-ton 42.00 - 45.75
lump, bulk, Atl. port net-ton 29.50 - 35.75
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia, bgs., c.l., works. ton 10.00 - 12.00
Georgia, bgs., l.c.l., works. ton 15.50 - —
dom., airfloated, 99%, 300 mesh bgs., c.l., Georgia, works. ton 13.50 - 14.50
bgs., l.c.l., ex-whse ton 35.00 - 36.00
imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me. long-ton 20.00 - 35.00
white, powd., bgs., c.l., ex dock. net-ton 50.00 - —
bgs., l.c.l., ex whse. net-ton 60.00 - 70.00

Cleaners naphtha, petroleum, 105°F Flash, tankcars, New Jersey and New York gal. 18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140°F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 gal. .154 - —
Houston, Texas gal. .17 - —
Cleve's acid, tech., mixed, solid, dms., frt. alld lb. 1.05 - —
1,6, tech., solid, dms., frt. alld. lb. .77 - —
1,7, tech., dms., frt. alld. lb. 2.20 - —
Cloves, Madagascar, bgs. lb. .37½- —
Zanzibar, bgs. lb. .37 - —
Clove bud oil, USP, dms. lb. 2.70 - 3.60
Clove leaf oil, crude, dms. lb. 1.25 - —
CMC, crude, 96.4% low or medium vis., bgs. or fib. dms., 23,000 lbs., dlvd. E., 100% basis lb. .41½- —
96.4% low, or medium vis., bgs. or fib. dms., less than 23,000 lbs., dlvd. E., 100% basis. lb. .43½- —
65%, low or medium vis., bgs., or fib. dms., c.l., dlvd. E., 100% basis lb. .41½- —
bgs. or fib. dms., l.c.l., dlvd. E., 100% basis lb. .43½- —
purif., high vis. (see Cellulose gum).
CMC, standard, low or medium vis., bgs., 23,000 lbs., works, frt. alld. lb. .57 - —
bgs., smaller lots, same basis. lb. .59 - —
CMC prices W. of the Rockies are 2c. per lb. lower and are on a works basis.

The KETONE FAMILY

1

ACETONE—low-boiling solvent that permits high solids concentration, particularly useful in high-low lacquer systems. Good for paint and varnish removers.

2

MEK—low-boiling, strong solvency for all resins used in lacquer. Gives low viscosity solutions, high solids concentration, high diluent tolerance.

3

MIBK—medium-boiling with excellent solvency characteristics. Has high tolerance for diluents. Gives solutions of low viscosity and high solids concentration.

4

DAA—high-boiling solvent that improves blush resistance. Excellent for hot lacquers. Ideal for decorative brushing lacquers because of mild odor.

5

EAK—high-boiling solvent, excellent blush resistance, good diluent tolerance, and high solvency for surface-coating materials. Slow evaporation contributes to good flow-out, prevents pinholing and bubbling.

Now—the standard of comparison for lacquer solvent systems . . .

Ketone solvent systems have become the standard of excellence in lacquer technology against which all other systems are measured.

There are very good reasons why this is so. For example:

Ketone solvent systems give superior finishes in almost any formulation at lowest cost. Ketones yield solutions of higher solids or permit greater diluent content with either aromatic or aliphatic solvents. In addition, ketone-based solvent systems assure complete flexibility in formulating. When you buy high-purity solvents from Shell, *you* add the latent solvent *you* prefer.

High-purity, active solvents available from Shell include: acetone, MEK, MIBK, DAA, EAK, as well as latent solvents MIBC, IPA, and industrial ethyl alcohols. Shell also provides technical assistance—backed by years of experience and one of the world's best-equipped surface coatings laboratories.

For information on solvents—or help with formulation problems, write or phone your nearest Shell Chemical office.

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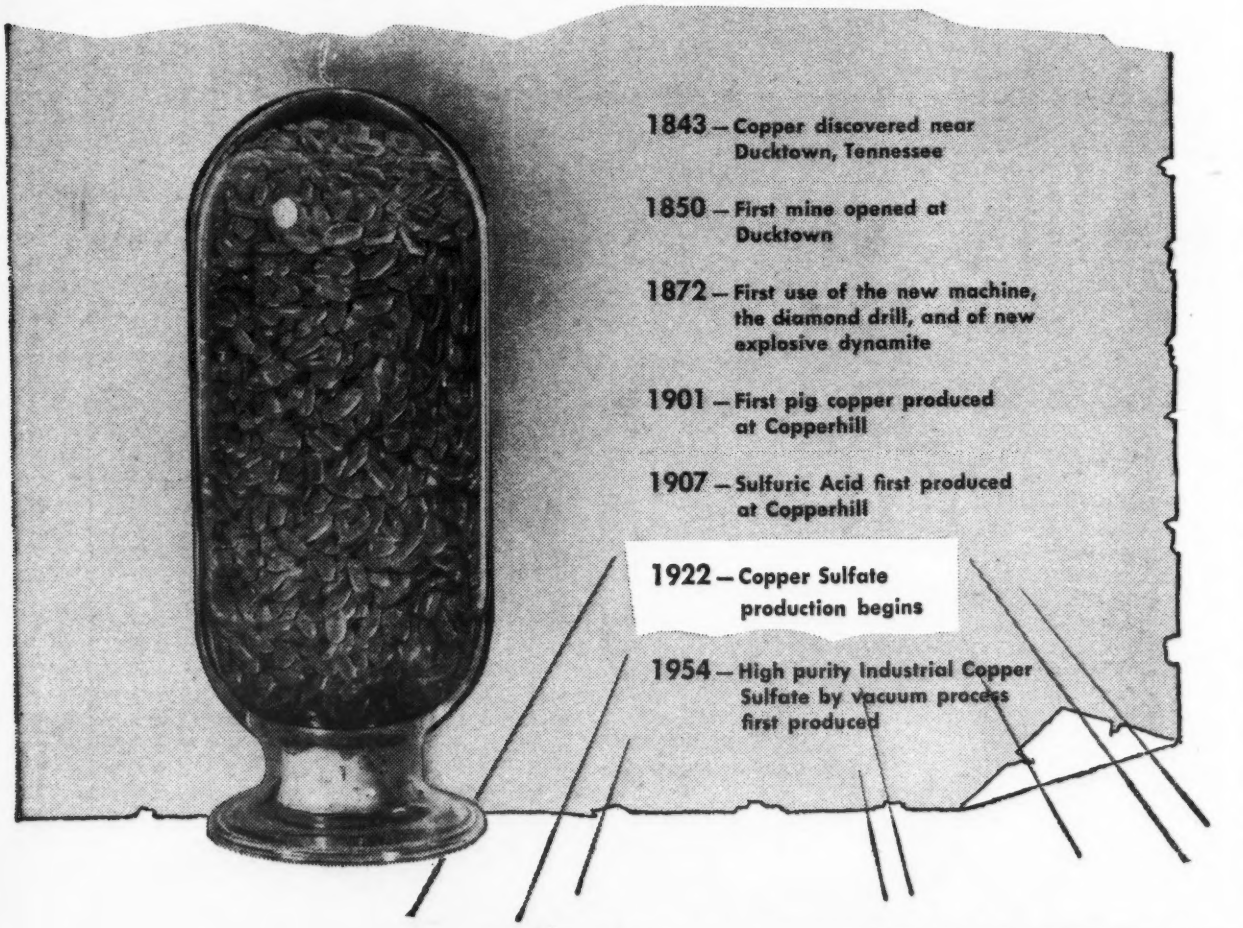
SHELL

Coaltar—Cresylic Acid

Coaltar, crude, resale for soln., tanks, works gal. .17 • —
Refd., resale, indust., dms., c.l., ex whse gal. .35 • —
dms., l.c.l., ex whse gal. .39 • —
tanks, works gal. .20½- —
Coaltar pitch, aluminum, bulk, works. ton.44.00 • —
Carbon and indust., bulk, works. ton.44.00 • —
Core, bulk works ton.40.50 • —
Fiber, bulk works ton.48.00 • —
Roofing, 140-155°F., Federal Specification RP-381 Type 1,
Cobalt acetate, 23.7% Co., dms., dlvd lb. 1.04 • —
Cobalt blue, genuine, 250 lb. bbls., dlvd. E. of Rockies lb. 4.90 • —
Cobalt blue prices 1c. higher W. of Rockies.
Cobalt blue, imitation (see Ultramarine blue).
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 • —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 • —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 2.05 • —
Cobalt linoleate, fused 8½% Co., dms lb. .71½- —
Liq., 6% Co., dms. lb. .57½- —
Cobalt metal, 99%, dms., f.o.b. carrier lb. 1.50 • —
Cobalt naphthenate, liq., 6% Co., dms., dlvd lb. .48¾- —
Cobalt nitrate, 20.1% Co., bbls., dlvd. lb. .75 • —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd. E. of Mississippi R. lb. 1.15 • —
70-71% Co. kgs., same basis lb. 1.12 • —
Cobalt oxide prices W. of Mississippi R. 3c. per pound higher.
Cobalt phosphate, powd., 32.1% Co., dms., dlvd lb. 1.35 • —
Cobalt resinate, fused, 3% Co., dms. lb. .33½- —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 • —
Monohydrated, 33% Co., dms., dlvd lb. 1.09 • —
Cobalt tallate, 6% Co., dms., dlvd. lb. .44 • —
Cocaine, USP. cns., 100-oz. lots, f.o.b. works oz.17.50 • —
Cocaine hydrochloride, cns., 100-oz. lots, f.o.b. works oz.13.75 • —
Cocillana bark, bls. lb. .18 • .20
Cocoa butter, bgs. lb. .58 • .63
Coconut oil, crude, tanks, New York lb. .15¼- —
tanks, Pac. coast lb. .13½- —
Refd., deodorized, dms. lb. .22 - .22½
Coconut oil acids, dist., dms. lb. .26½- .29
tanks lb. .24 • —
Double dist. (stripped), dms. lb. .27½- .30
tanks lb. .25 • —
Cod oil, dms., spot lb. .08¾- .08½
Codeine, NF, cns., 100-oz. lots oz.13.25 • —
Codeine hydrochloride, cns., 100-oz. lots oz.11.75 • —
Codeine phosphate, USP, cns., 100-oz. lots oz.10.25 • —
Codeine sulfate, USP, cns., 100-oz. lots oz.10.75 • —
Codliver oil, USP, dms gal. 1.40 • 1.70
Cohosh root, black, bls lb. .20 • .25
Blue, bls. lb. .20 • .25
Colchicine, USP, bots oz.29.00 • —
Colchicum root, bls lb. .35 • .45
Colchicum seed, bgs lb. .75 • .80
Collodion, USP, dms lb. .32½- —
USP. flexible, dms lb. .34 • —
Colocynth pulp, bls. lb. .75 • —
Colombo root, bls lb. .16 • .18
Condurango bark, bls lb. .18 • .20
Congo copal gum, No. 1, bgs lb. .26 • .27
No. 2, bgs. lb. .23 • .25
No. 3, bgs. lb. .18 • .20
Copaiba balsam, cns., dms lb. .60 • .65
Copaiba oil, cns lb. 1.35 • 2.00
Copper acetate, bbls., c.l., works. lb. .53 • —
bbls., l.c.l., works lb. .54 • —
Copper carbonate, 55%, bgs., c.l., works lb. .3635- —
bgs., l.c.l., works lb. .3785- —
Copper chloride cupric, anhyd., dms., works lb. .45½- .46
cryst., dihydrate, dms., works. lb. .31 - .31½
cryst., dried, dms., works lb. .39¼- .39¼
Copper chloride, cuprous, dms., works lb. .4135- .4435
Copper cyanide, tech., dms., 20,000-lb. lots or more lb. .609 • —
dms., 1,000-lb. lots or more lb. .619 • —
dms., smaller lots lb. .639 • .65
Copper gluconate, dms lb. 3.20 • —
Copper hydrate, dry, dms., c.l., frt. E. of Miss. lb. .53¼- —
dms., l.c.l., same basis lb. .54 • —
Copper metal, electrolytic, dlvd. Valley basis lb. .33 • .36
Copper naphthenate, liq., 8% Cu, dms, frt. alld lb. .26½- —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 • —
Copper oxide, black, bbls., 100-5,000-lb. lots, works lb. .49¼- —
Copper oxide, red, 97%, USN Type 1, bbls., 100-5,000-lb. lots. lb. .50½- —
90%, USN Type II, bbls., 100-5,000-lb. lots or more, works lb. .48½- —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 • —
10% active quinolinolate, dms lb. 1.14 • 1.15
Copper resinate, precip., dms., frt. alld lb. .41½- —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works. 100 lbs.13.00 • —
bgs., l.c.l., works 100 lbs.13.25 -15.75
Monohydrated, 35%, dms., c.l., works 100 lbs.24.00 • —
dms., l.c.l., works 100 lbs.24.75 • —
Tribasic, distributors, bgs., c.l., works 100 lbs.29.60 • —
bgs., l.c.l., works 100 lbs.31.10 • —
Copper undecylenate, dms lb 2.75 • —
Copra, Atl., Gulf ports, c.i.f. ton.190.00 • —
Pac. ports, c.i.f. ton.185.00 • —
Coriander oil, USP, bots. lb. 8.75 • —
Coriander seed, Moroccan, bgs. lb. .09½- —
Rumanian, bgs. lb. .07½- —
Yugoslavian, bgs. lb. .08½- —
Corn oil, crude, tanks, works lb. .11¼- —
Foots (soapstock) acid 95%, tanks, New York lb. .05¼- —
Refd., salad, dms lb. .1698- .17¼
tanks lb. .1498- —
Corn oil acids, dist., dms. lb. .15¾- .18¼
tanks lb. .1648- —
Corn sugar, tanners, chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 • —
paper bgs., l.c.l. 100 lbs. 7.45 • —
Corn syrup, 42° Be., non-ret. dms., c.l. 100 lbs. 7.31 • —
non-ret. dms., l.c.l. 100 lbs. 7.46 • —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP, bots., kilo or more gram. 1.05 - 1.75
Costus oil, bots. oz. 6.00 • —
Cottonseed meal, 41%, bgs., Memphis ton.58.00 Nom.
Cottonseed oil, crude, tanks, South, East lb. .10¼ Nom.
tanks, Valley lb. .10⅛- —
tanks, Texas, Lubbock lb. .09¾ Nom.
tanks, Texas, Waco lb. .09¾ Nom.
Foots (soapstock), acid, 95%, tanks, New York lb. .03½- —
Refd., salad, dms. lb. .15 - .15¼
tanks lb. .13 • —
Cottonseed oil acids, dist., dms. lb. .15¾- .18¼
tanks lb. .13⅛- —
Coumarin, NF, cryst., dms lb. 3.30 - 3.40
Cramp bark, NF, bls lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots., cbys., lb. 3.05 - 3.20
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 • —
Crude, soln. 80%, tanks, works. gal. .226 • —
Refd., dms., c.l., works gal. .50 • —
dms., l.c.l., same basis gal. 62 • —
tanks, same basis gal. .38 • —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, cbys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF, cbys., dms., same basis lb. 1.42 - 1.47
Pinewood, dms., incl., c.l., works. lb. .0561- —
dms., incl., l.c.l., works lb. .0634- —
dms., incl., l.c.l., ex whse, New York lb. .0745- —
tanks, works lb. .0460- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16½- —
non-ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .145 - —
Cresol, USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., same basis lb. .18 • —
non-ret. dms., l.c.l., same basis. lb. .19 • —
tanks, same basis lb. .16 • —
m-Cresol, 95-98%, dms., c.l., works. lb. .60 • —
dms., l.c.l., works lb. .61 • —
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 • —
dms., l.c.l., same basis lb. .19 • —
tanks, same basis lb. .16 • —
2,97% 2°C., dms., c.l., frt. equald. lb. .22 • —
dms., l.c.l., same basis lb. .23 • —
tanks, same basis lb. .20 • —
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald lb. .17 • —
ret. dms., l.c.l., same basis lb. .18 • —
tanks, same basis lb. .15 • —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½- —
ret. dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .14½- —
o-Cresol, 30.5°C. m.p. and over, ret.
o-Cresol, 29°-29.9° C. m.p., dms., c.l., frt. equald lb. .16 • —
ret. dms., l.c.l., same basis lb. .17 • —
tanks, same basis lb. .14 • —
25°-28°C. m.p., dms., c.l., frt. equald lb. .15 • —
ret. dms., l.c.l., same basis lb. .16 • —
tanks, same basis lb. .13 • —
p-Cresol, 98%, dms., c.l., dlvd lb. .52 • —
dms., l.c.l., dlvd lb. .53 • —
tanks, dlvd. lb. .49 • —
2,3-Cresotic acid, dms., ton lots, works lb. .70 • —
dms., smaller lots, works lb. .72 • —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt. equald gal. 1.35 • —
dms., l.c.l., same basis gal. 1.40 • —
tanks, same basis gal. 1.15 • —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 • —
dms., l.c.l., same basis gal. 1.25 • —
tanks, frt. equald gal. 1.00 • —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1850 — First mine opened at Ducktown
1872 — First use of the new machine, the diamond drill, and of new explosive dynamite
1901 — First pig copper produced at Copperhill
1907 — Sulfuric Acid first produced at Copperhill
1922 — Copper Sulfate production begins
1954 — High purity Industrial Copper Sulfate by vacuum process first produced

1922—Copper Sulfate production begins

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Cresylic acid, coaltar, imp., meta-para content 25% or less, f.o.b. works, frt. equald, to competitive points, 50 dms. or more, gal. 1.03½- —
less than 50 dms., same basis..gal. 1.03 - 1.15
tanks, same basis.....gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., l.c.l, works..lb. .25 - —
Crotonic acid, dms., 200 lbs. or more, l.c.l., dlvd..lb. .36 - —
Cryolite, nat., indust., bgs., c.l., works..100 lbs.13.00 - —
bgs., l.c.l., works.....100 lbs.14.25 - —
Cube root, powd., 5% rotenone, bgs., t.l., works..lb. .21 - —
bgs., l.t.l., works.....lb. .22 - —
Cubeb berries, NF, bgs.....lb. 1.00 - —
Powd., cs. .....lb. 1.15 - —
Cubeb oil, cns.....lb.12.00 -16.00
Cumene, dms., c.l., works.....lb. .12 - —
dms., l.c.l., works.....lb. .14 - —
tanks, works .....lb. .11 - —
Cumin seed, Iranian, bgs.....lb. .23 - —
Moroccan, bgs. .....lb. .31 - —
Turkish, bgs. .....lb. .27 - —
Cumin seed oil, bots., cns.....lb.15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract. ton.57.00 - —
Fertilizer, pulv., 21% N, bgs., works..unit-ton. 2.85 - —
Indust. grade, bgs., c.l. works. ton.75.00 - —
bgs., l.c.l., works.....ton.96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works..ton.120.00 - —
dms., l.c.l., works.....ton.140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E. of Rockies..gal. 1.02 - —
dms., l.c.l., same basis....gal. 1.10 - —
dms., c.l., dlvd. W. of Rockies gal, .77 - —
dms., l.c.l., same basis..gal. .85 - —
tanks, works .....gal. .55 - —
98%, tech., 40-dm. lots or more, f.o.b. works..gal. .56 - —
5-39 dms., same basis....gal. .60 - —
tanks, same basis.....gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld. E lb. .28½- —
dms., l.c.l., works, same basis. lb. .29½- —
tanks, works, same basis....lb. .26 - —
Cyclohexanone, tech., dms., c.l., works..lb. .33½- —
dms., l.c.l., works.....lb. .34½- —
tanks, works .....lb. .31 - —
Cyclohexylamine, dms., c.l., works. lb. .49 - —
dms., l.c.l., works.....lb. .50 - —
tanks, works .....lb. .47 - —
Cypress oil, bots.....lb. 5.30 - —

D

2,4-D, tech., bgs., dms., c.l., works, frt. equald..lb. .40 - —
bgs., dms., l.c.l., same basis..lb. .45 - .49
2,4-D butyl ester, dms., c.l., works. lb. .43 - —
dms., l.c.l., same basis.....lb. .48 - .52
tanks, same basis.....lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works..lb. .43 - —
dms., l.c.l., works.....lb. .48 - .52
tanks, works .....lb. .42 - —
Dammar gum, Batavia, A/E, cs. lb. No stocks.
East India, Batu, bold, bgs..lb. .15½- .18
nubs and chips, bgs. .....lb. .09 - .10
black, bold, bgs.....lb. .15½- .18
nubs and chips, bgs. .....lb. .12¼- .13½
unscraped, bgs. .....lb. .13 - .14½
pale, chips, bgs. .....lb. .15 - .17
pale, nubs, bgs. .....lb. .20¾- .24
Siam, cs. .....lb. .31½- .34
Singapore, No. 1, bgs. .....lb. .34 - .40
No. 2, bgs. .....lb. .29 - .32
No. 3, bgs. .....lb. No stocks.
dust, bgs. .....lb. .18 - .20
Dandelion root, bls.....lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works..lb. .45 - .47
fib. dms., l.c.l., works..lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd..lb. .23 - —
bgs., smaller lots, same basis. lb. .25 - —
fib. dms., c.l., same basis....lb. .24 - —
fib. dms., smaller lots, same basis..lb. .26 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
1-Decanol, tech., dms., c.l., dlvd. E. lb. .43½- —
dms., l.c.l., dlvd. E. .....lb. .45½- —
tanks, dlvd. E. .....lb. .41 - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd..lb. .23½- —
dms., l.c.l., dlvd. .....lb. .25 - —
tanks, dlvd. .....lb. .21 - —
Perfume grade, bots. .....lb. 1.00 - 2.00
Decyl alcohol, normal (see 1-Decanol).
Deertongue leaves, bls. .....lb. .55 - .60
Defluorinated phosphate, feed grade, 14% P, paper bgs., c.l., t.l., Tupelo, Miss..ton.57.07 - —
18% P, paper bgs., c.l., works. ton.66.25 -71.80
19% P, paper bgs., c.l., t.l., works, Houston, Tex..ton.74.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.
Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - —
Neutral (over 2% free fatty acid), 400-lb. dms. lb. .19 - .23
Denatured alcohol, ethyl, CD-12, CD-13, CD-14, CD-17, dms., c.l., dlvd. E. of Rockies. gal. .69½- —
dms., l.c.l., same basis .....gal. .74½- .80½
tanks, dlvd., same basis....gal. .53½- —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd. E. of Rockies..gal. .72 - —
dms., l.c.l., same basis.....gal. .77 - .83
tanks, same basis .....gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.
Denatured alcohol, ethyl, SD1, dms., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis....gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD2B, dms., c.l., dlvd. E. of Rockies..gal. .69 - —
dms., l.c.l., same basis....gal. .74 - .80
tanks, same basis.....gal. .53 - —
SD3A, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis....gal. .73 - .79
tanks, same basis .....gal. .52 - —
Denatured alcohol, ethyl, SD23A, dms., c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis....gal. .75½- .81½
tanks, same basis .....gal. .54½- —
SD23H, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis....gal. .76 - .82
tanks, same basis.....gal. .55 - —

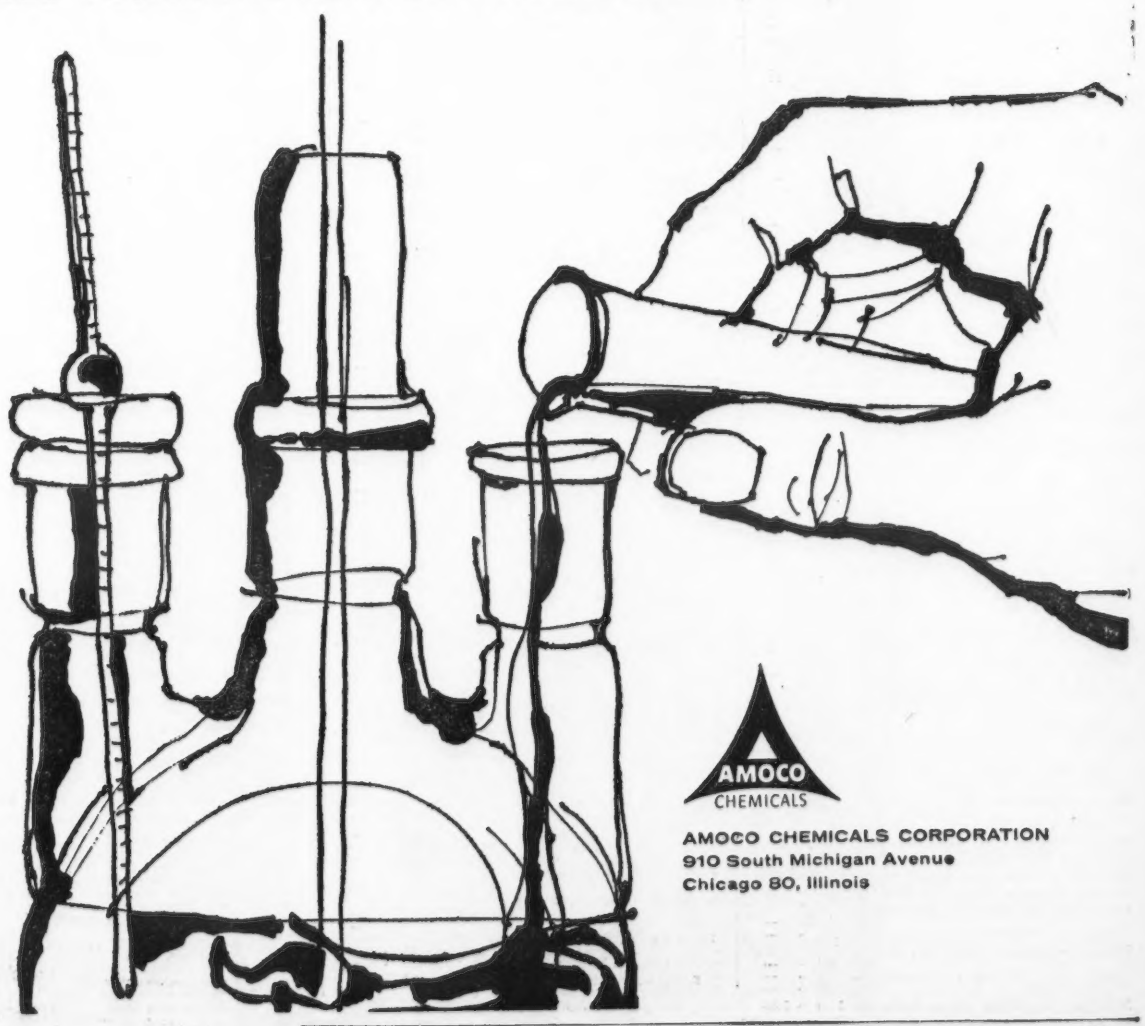
Denatured alcohol, SD29, dms., c.l., dlvd. E. of Rockies..gal. .69½- —
dms., l.c.l., same basis....gal. .74½- .80½
tanks, same basis.....gal. .53½- —
SD30, dms., c.l., dlvd. E. of Rockies..gal. .68 - —
dms., l.c.l., same basis....gal. .73 - .79
tanks, same basis.....gal. .52 - —
Denatured alcohol, ethyl, SD-35A, dms., c.l., dlvd. E. of Rockies..gal. .71 - —
dms., l.c.l., same basis....gal. .76 - .82
tanks, same basis.....gal. .55 - —
SD-40, dms., c.l., dlvd. E. of Rockies..gal. .70½- —
dms., l.c.l., same basis...gal. .75½- .81½
tanks, same basis.....gal. .54½- —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.
d-Desoxyephedrine hydrochloride, dms..lb..15.00 -17.00
dl-Desoxyephedrine hydrochloride, dms..lb. 6.50 - —
Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.38 - —
paper bgs., l.c.l. .....100 lbs. 9.53 - —
canary dark, paper bgs., c.l. 100 lbs. 9.22 - —
paper bgs., l.c.l. .....100 lbs. 9.37 - —
Indust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.12 - —
paper bgs., l.c.l. .....100 lbs. 9.27 - —
white, paper bgs., c.l..100 lbs. 8.96 - —
paper bgs., l.c.l. ....100 lbs. 9.11 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher.

Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs., l.c.l. .....100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs.14.70 - —
100-lb. dms. .....100 lbs.15.20 - —
Hydrated, coml., bgs., c.l., ex whse. 100 lbs. 7.45 - —
bgs., c.l., ex whse ...100 lbs. 7.60 - —
USP, dms. .....lb. .19¾- —
Diacetyl, flavor grade, bots. ....lb. 4.30 - 4.55
Di-sec-amyl phenol, dms., c.l., works..lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Di-tert-amyl phenol, dms., c.l., works..lb. .32 - —
dms., l.c.l., works .....lb. .33 - —
tanks, works .....lb. .29½- —
Diacetone alcohol, acetone-free, dms., c.l., dlvd..lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —
Tech., dms., c.l., dlvd. .....lb. .15 - —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
Diallylamine, dms., c.l., dlvd. ....lb. .98½- —
dms., l.c.l., dlvd. .....lb. 1.00 - —
tanks, dlvd. .....lb. .96 - —
o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —
Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., l.c.l., same basis.....lb. .94 - —
tanks, same basis.....lb. .91 - —

Dibromobenzene, bgs., 500-lb. lots. lb. .55 - —
2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd..lb. .65 - —
l.t.l., dms., same basis ..lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., l.t.l., same basis .....lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. ...lb. .57 - —
dms., l.c.l., same basis.....lb. .60 - —
tanks, same basis .....lb. .54 - —
Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E.....lb. .33 - —
tanks, dlvd E .....lb. .29 - —
Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½- —
dms., l.c.l., l.t.l., dlvd. E .....lb. .33 - —
tanks, dlvd. E .....lb. .29 - —
Dibutyl phthalate, dms., c.l., dlvd. E lb. .31 - —
dms., l.c.l., same basis .....lb. .32½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
Dibutyl sebacate, dms., c.l., works. lb. .67½- —
dms., l.c.l., works.....lb. .68½- —
tanks, works .....lb. .65½- —
Dibutyl tartrate, dms., works, frt. alld..lb. .65½- —
Dibutylamine, dms., c.l., dlvd..lb. .55½- —
dms., l.c.l., same basis.....lb. .57 - —
tanks, same basis.....lb. .53 - —

AMOCO OXO ALCOHOLS
HIGHEST ESTERIFICATION QUALITY

EACH SHIPMENT OF ISOOCTYL AND DECYL ALCOHOL IS TRIPLE CHECKED FOR QUALITY BY: 1. HIGH TEMPERATURE ESTERIFICATION WITH PHTHALIC ANHYDRIDE. 2. ACID COLOR WITH CONCENTRATED SULFURIC ACID. 3. ESTERIFICATION COLOR AFTER HEAT AGING. SKILLED TECHNICAL SERVICE AVAILABLE.



AMOCO CHEMICALS

AMOCO CHEMICALS CORPORATION
910 South Michigan Avenue
Chicago 80, Illinois

Dicapryl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanks, dlvd. lb. .25 - —
Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., l.c.l., works lb. .63½- .64
tanks, works lb. .61 - —
2,5-Dichloroaniline, dms., works lb. .83 - —
3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —
o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾- —
dms., l.c.l., same basis lb. .13¾- —
tanks, same basis lb. .11 - —
p-Dichlorobenzene, dms., c.l., f.o.b., works, frt. alld. E lb. .12 - —
dms., 2,000 lbs. or more same basis lb. .14½- —
1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½- —
dms., l.c.l., or l.t.l., works lb. .34 - —
tanks, works lb. .32 - —
Dichlorodiphenyltrichloroethane (see DDT).
2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½- —
dms., l.c.l., l.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —
Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald. lb. .65 - —
dms., l.c.l., same basis lb. .75 - —
Dichloropentanes, dist., dms., c.l., works lb. .05 - —
dms., l.c.l., works lb. .06 - —
tanks, works lb. .03 - —
Dichlorophenoxyacetic acid (see 2,4-D).
Dicyclohexylamine, dms., c.l., works. lb. .54 - —
dms., l.c.l., works lb. .55 - —
tanks, works lb. .52 - —
Dicyclohexyl phthalate, gran., fib. dms., c.l., works, frt. alld. lb. .46½- —
fib. dms., l.c.l., same basis lb. .48 - —
Dicyclopentadiene, dms., c.l., f.o.b. works lb. .14½- —
dms., l.c.l., same basis lb. .14¾- —
tanks, same basis lb. .12 - —
Didecyl phthalate, dms., c.l., works. lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tankcars, tanktrucks, 2,000 gals. lb. .26 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
Dieldrin, dms., c.l., dlvd. lb. 1.85 - —
dms., l.c.l. dlvd. lb. 1.90 - —
Diethanolamine, dms., c.l., dlvd. E. lb. .27 - —
dms., l.c.l., same basis lb. .28½- —
tanks, same basis lb. .24½- —
Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½- —
dms., l.t.l., frt. alld. lb. .28½- —
tanks, frt. alld. lb. .26½- —
Diethyl barbituric acid (see Barbital).
Diethyl carbonate, dms., c.l., f.o.b. works lb. .47½- —
dms., l.c.l., same basis lb. .48½- —
tanks, same basis lb. .45 - —
Diethyl ethanolamines, dms., c.l., dlvd lb. .69½- —
dms., l.c.l., dlvd. lb. .71 - —
tanks, dlvd. lb. .67 - —
Diethyl oxalate, dms., c.l., f.o.b. works lb. .42½- —
dms., l.c.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Diethyl phthalate, dms., c.l., dlvd. lb. .27½- —
dms., l.c.l., dlvd. lb. .29 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .26½- —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .26 - —
Diethyl sulfate, dms., c.l., works lb. .19½- —
dms., l.c.l., works lb. .20¼- —
tanks, works lb. .17½- —
Diethyl thiourea, dms., c.l., t.l., works lb. .58 - —
dms., l.c.l., same basis lb. .59 - —
Diethyl toluamide, 90-95% meta isomer dms., c.l., t.l., works. lb. 2.30 - —
5-44 dm. lots, works lb. 2.35 - —
1-4 dm. lots, works lb. 2.40 - —
N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —
Diethylamine, dms., c.l., dlvd. E lb. .52 - —
dms., l.c.l., same basis lb. .53½- —
tanks, same basis lb. .49½- —
N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., l.c.l., same basis lb. .58 - —
tanks, same basis lb. .55 - —
Diethylbenzene, dms., t.l., frt. alld. lb. .16½- —
Di-2-ethylhexyl adipate (see Dioctyl adipate).
Di-2-ethylhexyl phthalate (see Dioctyl phthalate).
Diethylene glycol, dms., c.l., dlvd. E. lb. .17¾- —
dms., l.c.l., same basis lb. .19¼- —
tanks, same basis lb. .15¼- —
Diethylene glycol diethyl ether, dms., c.l., works lb. .51½- —
dms., l.c.l., works lb. .52¼- —
Diethylene glycol monobutyl ether, c.l., dms., works lb. .30¾- —
dms., l.c.l., works lb. .32¼- —
tanks, dlvd. E. lb. .28¼- —
Diethylene glycol monobutyl ether acetate, dms., c.l., works. lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, dlvd. E. lb. .26¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd lb. .22½- —
dms., l.c.l., dlvd. lb. .24 - —
tanks, dlvd. E. lb. .20 - —
Diethylene glycol monoethyl etner acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., dlvd. lb. .22½- —
tanks, dlvd. E. lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd, E lb. .44 - —
dms., l.c.l., dlvd. E. lb. .45½- —
tanks, dlvd. E. lb. .41½- —
Diethylstilbesterol, USP, bots., 10-kilo lots kilo. 100.00 -147.50
bots, 1-kilo lot kilo. 110.00 -152.50
Digitalis leaves, USP, dom., dms lb. 1.25 - —
Digitoxin, USP, bots. gram. 4.20 - —
Diglycol laurate, dms. lb. .32¾- .34
Diglycol stearate, dms., ton lots lb. .26 - .28
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk, gram. .035 - .036
1,2-Dihydroxy anthraquinone, dms., works lb. 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl-methane, pure, dms. lb. 2.55 - —
Tech., dms., 20,000 lbs. or more lb. 1.11 - —
dms., 1,050 lbs. to 20,000 lbs. lb. 1.13 - —
dms., 150 lbs. to 1,050 lbs. lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd. lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E. lb. .31½- —
dms., l.c.l., same basis lb. .32½- —
tanks, same basis lb. .29 - —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd. E lb. .11½- —
tanks, dlvd. E. lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., dlvd lb. .28½- —
dms., l.c.l., same basis lb. .30 - —
tanktrucks, 1,000-1,999 gals., dlvd. lb. .26½- —
tankcars, tanktrucks, 2,000 gals., dlvd. lb. .26 - —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .62½- .63
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —
Dillweed oil, dom., bots., dms lb. 3.25 - 3.75
Dimethyl anthranilate, cns. lb. 4.15 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.50 - —
Dimethyl ethanolamines, anhyd., dms., c.l. dlvd lb. 1.225 - —
dms., l.c.l., dlvd. lb. 1.235 - —
tanks, dlvd. lb. 1.20 - —
70% dms., c.l., dlvd., 100% basis, contained amines lb. .68½- —
dms., l.c.l., dlvd., 100% basis. lb. .69½- —
tanks, dlvd., 100% basis lb. .66 - —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .28½- —
dms., l.c.l., works lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .26½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .26 - —
Dimethyl sebacate, dms., c.l., works. lb. 1.31 - —
dms., l.c.l., works lb. 1.30 - —
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17½- —
ret. dms., l.c.l., works lb. .18½- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works. lb. .18 - —
dms., l.c.l., works lb. .18½- —
tanks, works lb. .15 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —
tanks, frt. equald, 100% basis. lb. .28 - —
40% soln., dms., c.l., frt. equald, 100% basis lb. .35 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald, 100% basis lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.56 - —
Dinitroaniline orange toner prices 1c higher W. of Rockies.
m-Dinitrobenzene, 39°C., dms. lb. .26 - —
2,4-Dinitrochlorobenzene, crystallizing at 46½°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E. lb. .17¾- —
tanks, frt. alld. E. lb. .17 - —
2,4-Dinitrophenol, bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .42½- —
dms., l.c.l., works lb. .43½- —
tanks, works lb. .40 - —
Dioctyl phthalate, dms., c.l., frt. alld lb. .28½- —
dms., l.c.l., frt. alld lb. .30 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .25½- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25 - —
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., dlvd. E lb. .31½- —
dms., l.c.l., dlvd. E lb. .33 - —
tanks, dlvd. E. lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs., c.l., t.l., dlvd. E lb. .40 - —
bgs., l.c.l., l.t.l., dlvd. E. lb. .41 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works lb. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankcars, works gal. .41 - —
Steam dist., dms., c.l., works, South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¼- —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .51¾- —
dms., l.c.l., works lb. .53¾- —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .31 - —
bgs., l.c.l., same basis lb. .33 - —
Refd., fused, tanks, same basis lb. .28 - —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine, bgs., dms., ton lots, frt. alld lb. .49 - —
bgs., smaller lots, frt. alld lb. .50 - —
Diphenylhydantoin-sodium, USP, dms. lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼- —
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.45 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .69 - —
dms., smaller lots, frt. alld. lb. .70 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald. lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .75 - —
dms. l.c.l., l.t.l., same basis lb. .76 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald. lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol, c.l., frt. alld. lb. .22 - —
dms., l.c.l., same basis lb. .23 - —
tanks, same basis lb. .19½- —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 1-lb. lots, dlvd.:
Blue, FD&C, No. 1 lb. 15.65 -17.60
No. 2 lb. 15.65 -17.60
Green, FD&C, No. 1 lb. 15.65 -17.60
No. 2 lb. 19.60 -22.85
No. 3 lb. 31.30 -35.90
Red, FD&C, No. 1 lb. 5.90 - 7.85
No. 2 lb. 3.30 - 4.10
No. 3 lb. 19.60 -22.85
No. 4 lb. 5.53 - 7.50
Violet, FD&C, No. 1 lb. 15.65 -17.60
Yellow, FD&C, No. 1 lb. 9.15 -11.05
No. 5 lb. 3.30 - 4.10
No. 6 lb. 3.30 - 4.10
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb. 10.50 -10.95
Brown, D&C, No. 1 lb. 15.65 -16.10
Green, D&C, No. 5 lb. 15.65 -16.10
No. 6 lb. 15.65 -16.10
No. 7 lb. 14.35 -14.80
Orange, D&C, No. 3 lb. 10.50 -10.95
No. 4 lb. 19.60 -20.05
No. 5 lb 3.80 - 4.25
Red, D&C, No. 17 lb. 10.50 -10.95
No. 18 lb. 23.60 -24.00
No. 19 lb. 15.00 -15.45
No. 21 lb 3.90 - 4.35
No. 22 lb. 10.50 -10.95
No. 28 lb. 24.15 -24.65
No 33 lb. 17.00 -17.45
Violet, D&C, No. 2 lb. 15.65 -16.10
Yellow, D&C, No. 7 lb. 10.50 -10.95
No. 8 lb. 10.50 -10.95
No. 10 lb. 13.05 -13.50
No 11 lb. 13.05 -13.50
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb. 15.65 -16.10
Green, Ext., D&C, No 1 lb. 15.65 -16.10
Red, Ext., D&C, No. 1 lb. 13.05 -13.50
Yellow, Ext, D&C, No. 1 lb. 10.50 -10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd. No.
11110 Brilliant scarlet BN lb. 1.79 - —
13390 Fast blue SR lb. 1.43 - —
14025 Yellow 2G lb. 1.26 - —
14030 Orange R, extra, conc. lb. 1.64 - —
14645 Chrome black T lb. .77 - —
14720 Rubine XX, conc. lb. 1.59 - —
15510 Orange Y, extra conc. lb. .83 - —
15575 Orange RR lb. .99 - —
15620 Fast Red A, conc lb. 1.61 - —
15705 Chrome blue black R, conc. lb. 1.12 - —
16150 Scarlet 2RL lb. 1.22 - —
16255 Brilliant scarlet 3RN, conc. lb. 1.26 - —
16230 Fast light, orange 2G lb. 1.39 - —
17590 Brown PG lb. 3.00 - —
18050 Phloxine 2G lb. 1.05 - —
18055 Fuchsine 6B lb. 1.55 - —
18965 Fast yellow 2G lb. 2.32 - —
19140 Yellow XX lb. 2.48 - —
19555 Yellow NN, conc. lb. 3.67 - —
20170 Brown Y lb. 1.33 - —
20470 Blue black, extra, conc lb. 1.44 - —
21010 Brown, RX, conc. lb. 1.35 - —
22240 Scarlet B lb. 2.81 - —
22310 Red FC lb. 1.57 - —
22311 Brown MCW lb. 1.47 - —
22610 Blue 2B, extra conc. lb. 1.53 - —
23500 Red 4BX, conc. lb. 1.80 - —
24410 Sky blue FF, extra, conc lb. 1.95 - —
24895 Brilliant yellow, conc. lb. 3.27 - —
26360 Navy blue 3R, conc. lb. 1.84 - —
26695 Black F, conc. lb. 2.30 - —
26900 Milling Red 3R, conc lb. 2.24 - —
27075 Neutral black 2B, conc lb. 2.75 - —
27720 Gray L lb. 2.18 - —
29185 Fast scarlet 4BNC lb. 2.23 - —
30015 Diazo black VJ conc. lb. 2.48 - —
30045 Yellow brown K, extra lb. 1.26 - —
30235 Black EB, 200% lb. 1.33 - —
30295 Green BY, conc. lb. 1.07 - —
35660 Brown B lb. 2.89 - —
37565 Naphthol SWF lb. 1.85 - —
40000 Yellow 2G lb. 1.44 - —
41000 Yellow OX lb. 2.45 - —
42000 Green V, crystals lb. 2.73 - —
42040 Brilliant green G crystals lb. 3.62 - —
42090 Blue EG lb. 1.85 - —
42100 Milling green 6B, conc. lb. 4.78 - —
42640 Violet 4BXN lb. 2.43 - —
43830 Brilliant blue, BBG lb. 2.44 - —
44045 Blue B, extra conc. lb. 3.61 - —
45170 Red BX lb. 4.76 - —
50415 Nigrosine SSJ lb. 1.03 - —
52015 Blue GXX lb. 2.33 - —
58005 Alizarin red SC lb. 3.64 - —
59700 Golden orange GFD, single paste lb. 2.70 - —
59710 Flaming orange 6RD double powder lb. 4.90 - —
59800 Dark blue BO, single paste. lb. 2.28 - —
59825 Jade green NC supra, double paste lb. 1.50 - —
61570 Alizarin green CG, extra lb. 3.81 - —
63010 Alizarin blue SAPG lb. 3.90 - —
63615 Alizarin blue black B lb. 3.26 - —
69825 Blue BLFD double paste lb. 2.82 - —
70800 Brown BR single paste lb. 2.03 - —
Dyes, coaltar, oil-soluble, 100-lb. drums, dlvd. No.
12140 Oil scarlet BL lb. 1.87 - —
12055 Oil orange 7078 V lb. 1.38 - —
26120 Oil red N 1700 lb. 1.94 - —
42535B Methyl violet base lb. 1.88 - —
44045B Victoria blue base lb. 4.06 - —
50415B Oil black 8603 lb. .80 - —
61565 Alizarin cyanine green base. lb. 6.13 - —
Spirit black RB lb. 3.89 - —
Spirit brown GN lb. 5.30 - —
Spirit orange R conc. lb. 5.87 - —
Spirit red B conc lb. 6.41 - —
Pr. 517 Spirit yellow 2R conc lb. 4.62 - —
Pr. 554 Spirit blue THN lb. 5.06 - —

E

Echinacea root, bls. lb. 1.25 - —
Elm bark, grinding, bls. lb. .30 - .32
Powd., bbls., bxs. lb. .50 - .55
Select, bundles lb. .75 - —
Emetine hydrochloride, USP, bots. oz. 48.40 - —
Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd lb. 2.70 - —
Eosin red toner, bbls., works lb. 1.95 - —
Ephedrine, syn., USP, anhyd., bots. 100-oz. lots oz. .98 - 1.00
hydrous, bots., 100-oz. lots, oz. .92 - —
Ephedrine hydrochloride, NF, dms., 100-oz. f.o.b. works oz. .72 - —
Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b works oz. .73 - —
USP, powd., dms., 100-oz., same basis oz. .73 - —
Epichlorohydrin, dms., c.l., dlvd lb. .29½- —
dms., l.c.l., dlvd. lb. .31 - —
tanks, dlvd. lb. .27 - —
l-Epinephrine base, syn., USP, bots., 100 gram lots gram. .58 - —
Epsom salt (see Magnesium sulfate).
Erigeron oil, cns. lb. 11.00 - —
Ergot, NF, dms., tin-lined lb. 1.00 - 1.25
Eserine salicylate, bots. oz. 44.00 - —
Eserine sulfate, bots. oz. 86.00 - —
Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W Va lb. .18½- —
Wood-rosin type, dms., c.l., same basis lb. .18½- —
Ether (see specific product).
Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
95-98%, dms., c.l., dlvd. lb. .15¼- —
dms., l.c.l., dlvd. lb. .16¾- —
tanks, dlvd. lb. .12¾- —
Ethyl acetate, nat., ferment, 99%, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd. lb. .13 - —
syn., 85-88%, dms., c.l., dlvd lb. .15 - —
dms., l.c.l., dlvd. lb. .16½- —
tanks, dlvd. lb. .12½- —
Ethyl acetate, syn., 95-98%, dms., c.l., dlvd lb. .15¼- —
dms., l.c.l., dlvd lb. .16¾- —
tanks, dlvd lb. .12¾- —
99%, dms., c.l., dlvd. lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks dlvd. lb. .13 - —
Ethyl acetoacetate, dms., c.l., dlvd. lb. 58½- —
dms., l.c.l., dlvd. lb. .60 - —
tanks, dlvd. lb. .56 - —
Ethyl acrylate, dms., c.l., t.l., dlvd. lb. .36 - —
dms., l.t.l., dlvd. lb. .37 - —
tanks, dlvd lb. .34 - —
Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies gal. 20.63 - —
dms., l.c.l., same basis gal. 20.68 -20.74
Ethyl alcohol, 190 pf., USP, tax-free, dms., c.l., dlvd. E. of Rockies gal. .68 - —
dms., l.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
Ethyl alcohol, absolute, 200 pf., tax paid, dms., dlvd. E. of Rockies gal. 21.75 - —
dms., l.c.l., same basis gal. 21.80 -21.86
tanks, same basis gal. 21.59 - —
Ethyl alcohol, denatured (see Denatured alcohol, ethyl)
Ethyl aminobenzoate, USP (see Benzocaine).
Ethyl amyl ketone, dms., c.l., dlvd. lb. .20 - —
dms., l.c.l. same basis lb. .21½- —
tanks, same basis lb. .17½- —
Ethyl benzoate, bots. lb. .75 - 1.00
Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E lb. .43 - —
dms., l.c.l., frt. alld. E lb. .45 - —
tanks, frt. alld. E lb. .41 - —
Ethyl butyl ketone, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., t.l. works lb. .36¾- —
tanks, works lb. .34 - —
Ethyl butyrate, dms., works lb. .85 - 1.00
Ethyl carbamate (see Urethane).
Ethyl cellulose, vis. 7 cps., bgs., 5.000-lb lots or more, frt. alld. E lb. .73 - —
bgs., smaller lots, frt. alld. E lb. .75 - —
Vis 10, 20, 50 100, 150 cps., bgs., 5.000-lb lots or more, frt. alld. E lb. .68 - —
bgs., smaller lots, frt. alld E. lb. .70 - —
Ethyl chloride, tech., cyls., works. lb. .20 - .22
dms., works lb. .18 - .20
tanks, works lb. .10 - —
Ethyl cinnamate cns. lb. 3.35 - 3.50
Ethyl ethanolamies, mixed, dms., c.l., dlvd. E lb. .43½- —
dms., l.c.l., dlvd. E lb. .44½- —
tanks, dlvd. E lb. .41½- —
Ethyl ether, absolute, ACS, dms. lb. .27 - —
Anesthesia, USP, dealers, 1-lb. cns. lb. 1.01 - —
½-lb. cns lb. 1.09 - —
¼-lb. cns. lb. 1.21 - —
Indust., dms., c.l., dlvd. lb. .13½- —
dms., l.c.l., dlvd. E. lb. .15 - —
tanks, dlvd E. lb. .11 - —
2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E lb. .37 - —
dms., l.c.l., l.t.l., dlvd. E lb. .38½- —
tanks, dlvd. E. lb. .34½- —
2 Ethyl hexoic acid, 1c. higher W. of Rockies.
2-Ethyl hexyl acrylate, dms., c.l. t.l., straight or mixed frt. alld. E lb. .42½- —
dms., l.t.l., same basis lb. .43½- —
tanks, same basis lb. .40 - —
Prices of 2-ethylhexyl acrylate are 1½c. per lb. higher in Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
2-Ethylhexyl alcohol, dms., c.l., dlvd. lb. .23¾- —
dms., l.c.l, dlvd. lb. .25¼- —
tanks, dlvd. lb. .21¼- —
Ethyl iodide, cbys., works lb. 3.30 - —
Ethyl methacrylate, dms., c.l., frt. equald lb. .52 - —
dms., l.t.l., frt. equald lb. .52½- —
tanks, frt. equald lb. .50 - —
Ethyl morphine hydrochloride, USP, bots oz. 11.85 - —
Ethyl oenanthate, dms lb. 1.05 - 1.30
Ethyl oxalate (see Diethyl oxalate).
Ethyl silicate, dist. (see Tetraethyl orthosilicate).
Ethyl silicate, 40% available SiO_2, dms., c.l., dlvd lb. .44½- —
dms., l.c.l., dlvd lb. .46 - —
tanks, dlvd lb. .42 - —
N-Ethyl-a-naphthylamine, dms., works. lb. 1.04 - —
N-Ethyl-m-toluidine, tech., liq., tanks frt. alld lb. .83 - —
N-Ethyl-o-toluidine, bbls lb. .88 - —

Ethylamine (see Mono-, Di-, or Tri-)
N-Ethylaniline, dms., c.l., frt. alld. lb. .57 - —
dms., l.c.l., frt. alld. lb. .58 - —
tanks, frt. alld lb. .55 - —
Ethylbenzene, 99%, dms., c.l., t.l., frt. equald. lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, same basis lb. .12½- —
2-Ethylbutyl alcohol, dms., c.l., works lb. .30 - —
dms., l.c.l., works lb. .30¾- —
tanks, works lb. .28 - —
Ethylene, contract, refy. gate lb. .0475- .0525
Ethylene dibromide, dms., c.l., frt. equald lb. .30½- —
dms., l.c.l., frt. equald lb. .31½- —
tanks, frt. equald lb. .28½- —
Ethylene dichloride, dms., c.l., dlvd. lb. .11½- —
dms., l.c.l., same basis lb. .13 - —
tanks, same basis lb. .09 - —
Ethylene dichloride prices W. of Rockies, 1c. per lb. higher.
Ethylene glycol, indust., dms., c.l., dlvd. E lb. .16 - —
dms., l.c.l., same basis lb. .17½- —
tanks, same basis lb. .13½- —
Ethylene glycol monobutyl ether, dms., c.l., dlvd. E lb. .22 - —
dms., l.c.l., dlvd. E lb. .23½- —
tanks, dlvd. E lb. .19½- —
Ethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd E lb. .18½- —
Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E lb. .19½- —
dms., l.c.l., dlvd. E lb. .20½- —
tanks, dlvd. E lb. .17 - —
Ethylene glycol monomethyl etner, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd E lb. .18½- —
Ethylene glycol monomethyl ether acetate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., dlvd. E lb. .29¾- —
tanks, dlvd. E lb. .27 - —
Ethylene glycol monostearate, triple pressed, dms lb. .33 - .35
Ethylene oxide, dms., c.l., dlvd. E. lb. .21½- —
dms., l.c.l., dlvd. E lb. .24½- —
tanks, dlvd. E lb. .15½- —
Ethylene trichloride (see Trichloro-ethylene)
Ethylenediamine, 85-83%, dms., c.l., dlvd. E., 100% basis lb. .42 - —
dms., l.c.l., dlvd. E., 100% basis. lb. .43 - —
tanks, dlvd. E., 100% basis lb. .40 - —
lots and over lb. 6.75 - —
200-lb. lots and over lb. 7.00 - —
100-lb. lots and smaller lb. 7.30 - 7.40
Ethylvanillin, 100-lb. fib. dms., 500-lb. lb. .85 - 1.40
Eucalyptol, USP, cns., dms lb. .44 - .55
Eucalyptus oil, NF, rectified, 70-75%, dms lb. .53 - .62
NF, rectified, 80-85%, dms. lb. 1.45 - —
Eugenol, tech., dms lb. 2.00 - —
USP, dms. lb. .12 - .15
Euphorbia herb, bis lb. .12 - .15

F

F salt paste, tech. dms., works lb. 2.30 - —
Feldspar, 140-200 mesh, bulk, c.l., works ton. 19.50 - —
Feldspar in bags $3 per ton higher
Fennel oil, sweet, USP, cns lb. 1.95 - 2.25
Fenugreek seed, Argentine, bgs lb. .16 - —
French, light, bgs lb. .16 - —
Indian, light bgs lb. .17 - —
Rumanian, bgs. lb. .14 - —
Yugoslav, light, bgs lb. .16½- —
Fenugreek seed, Moroccan, bgs lb. .08 - —
Ferric chloride, anhyd., tech., dms., c.l., works 100 lbs. 7.50 - —
dms., l.c.l., works 100 lbs. 8.50 - —
Indust., cryst., bbls., c.l., works. 100 lbs. 5.25 - 6.75
bbls., l.c.l., works 100 lbs. 5.75 - 7.25
42° Be., photo grade, cbys., c.l., works 100 lbs. 7.25 - 8.25
sewage grade, tanks, frt. equald. 100% basis 100 lbs. 4.00 - —
USP, cryst., dms., t.l., works lb. .08½- —
Ferric citrate gran., dms lb. .86 - —
Ferric hypophosphite, NF, dms. lb. 3.45 - —
Ferric naphthenate, liq., 6% Fe, dms., frt. alld lb. .28¼- —
Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E lb. .89 - —
Ferric oxides (see iron oxides).
Ferric phosphate, NF, soluble, gran. pearls, cs. lb. .72 - .75
Ferric pyrophosphate, NF VII, soluble, gran., pearls, dms. lb. .70 - —
Ferric resinate, 6¼% Fe., dms., ton lots, frt. ald. lb. .40¼- —
Ferric stearate, dms., c.l., frt. alld. lb. .39 - —
dms., l.c.l., frt. alld lb. .40 - .44
Ferric sulfate, partly hydrated, bgs., c.l., works ton. 35.25 - —
bgs., l.c.l., works ton. 36.25 - 42.25
bulk, c.l., works ton. 33.25 - —
Ferric-ammonium citrate, brown, pearls, NF, gran., dms lb. .65 - .68
Green pearls, USP XII, gran., dms lb. .66 - .69
Ferric-ammonium oxalate, fine gran., dms lb. .27½- .29½
Ferric-potassium oxalate, fine gran., dms lb. .32½- .34½
Ferric-sodium oxalate, fine gran., dms lb. .27½- .29½
Ferrous gluconate, USP, 200-lb. dm., frt. equald lb. .96 - —
Ferrous sulfate, gran., bgs., c.l., works ton. 34.50 - —
bgs., l.c.l., dlvd. Metropolitan area 100 lbs. 3.35 - 4.25
bbls., c.l., works ton. 40.00 - —
bulk, c.l., works ton. 27.00 - —
USP, cryst., bbls., dms lb. .09½- .10
Fir balsam, Canada, bbls gal. 32.00 - 35.00
Oregon, bbls. gal. 3.40 - 4.64
Fir oil, Canada, cns lb. 1.75 - 2.50
Fish oil, refd., alkali, dms lb. .1250- .1300
Kettle-bodied, dms. lb. .1480- .1530
Light-pressed, dms. lb. .1100- .1150
tanks lb. .09½- —
Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms. 1,000,000 units. .12 - —
Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts ton. 100.00 - —
Fishscrap, dom., menhaden, dried, 60% protein, grd., bgs., Atlantic and Gulf coasts. ton. 96.00 - —
Fleaseed (see Psyllium seed).
Folic acid, USP, bots., fib. dms., kilo lots or more gram. .30 - .44
10% feed grade, fib. dms., 3 kilos or more kilo. 30.00 - 44.00
Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l., dlvd. lb. .0695- —
tanks, dlvd. lb. .0430- —
Formaldehyde, methanol-free (uninhibited), tanks, dlvd lb. .0375- —
Formic acid, 85%, cbys., c.l., works. lb. .1570- —
cbys., l.c.l., works lb. .1620- .1720
90%, cbys., c.l., works lb. .1625- —
cbys., l.c.l., works lb. .1675- .1775
Fringetree bark, bls lb. .65 - .70
Fumaric acid, tech., 250-lb. dms., c.l., frt. equald. lb. .23¼- —
dms., l.c.l., frt. equald lb. .24¾- —
Fumaric acid in bags ½c. per lb. less.
Furfural, dms., c.l., works lb. .13 - —
dms., l.c.l., works lb. .14 - —
tanks, dlvd. E lb. .12 - —
tanks, dlvd. W lb. .13 - —
Furfuryl alcohol, cns., works lb. .28 - —
dms., c.l., t.l., Newark, N. J. lb. .20½- —
dms., l.c.l., l.t.l., Newark, N. J. lb. .21½- —
dms., c.l., t.l., Memphis, Tenn lb. .19 - —
dms., l.c.l., l.t.l., Memphis, Tenn. lb. .20 - —
tanks, Memphis, Tenn. lb. .175 - —
Fusel oil, refd., dms., c.l., dlvd. lb. .18 - —
dms., l.c.l., dlvd. lb. .19½- —
tanks, dlvd. lb. .15½- —

G

G salt, bbls., frt. alld., 100% basis. lb. .73 - —
Gallic acid, NF, VII, bbls., 1,000-lb. lots lb. 2.00 - —
bbls., smaller lots lb. 2.02 - 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb. 1.80 - 2.00
Gamma acid, dry grd., bbls., frt. alld. lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom., bots. oz. 4.75 - 6.05
Imp., bots. oz. 4.50 - 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin, edible, 75 AOAC test, bbls., c.l., dlvd. lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l., dlvd. lb. .70 - —
225 AOAC test, bbls., c.l., dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsenium root, bls. lb. .30 - .35
Gentian root, bls. lb. .24 - —
Grd., bbls., bxs. lb. .30 - —
Powd., bbls., bxs. lb. .30 - —
Geraniol, extra, cns., dms. lb. 1.75 - 2.40
Soap grade, dms. lb. .90 - 1.75
Standard, cns., dms. lb. 1.65 - —
Synthetic, dms. lb. 1.30 - —
Geranium oil, Algerian, cns. lb. 23.00 - —
Bourbon, cns. lb. 30.00 - —
Geranium oil, Turkish (see Palmarosa oil).
Geranyl acetate, cns. lb. 1.90 - 2.70
Synthetic, dms. lb. 1.45 - —
Ginger oil, dist., bots. lb. 11.50 - 14.00
Ginger oleoresin, NF, from African root, bots. lb. 4.25 - 5.00
NF, from Jamaican root, bots. lb. 7.75 - —
Ginger root, Cochin, bgs lb. .29 - —
Jamaican, No. 3, bgs lb. .28 - —
Nigerian, split, bgs lb. .16½- —
Sierra Leone, bgs lb. .25 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid, tech., 50%, dms., c.l., t.l., f.o.b. works lb. .20 - —
dms., l.c.l., f.o.b. works lb. .21 - —
tanks, f.o.b. works lb. .17 - —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd. lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
191 jellygrams, bgs., c.l., same basis lb. .19½- —
222 jellygrams, bgs., c.l., same basis lb. .21 - —
Glue, bone, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
115 jellygrams, bgs., c.l., same basis lb. .16½- —
Glue, bone, green, 135 jellygrams, bgs., c.l., same basis lb. .17½- —
164 jellygrams, bgs., c.l., same basis lb. .18½- —
180 jellygrams, bgs., c.l., same basis lb. .19½- —
200 jellygrams, bgs., c.l., same basis lb. .20½- —
Bone glue, l.c.l., prices 2c. higher.
Glue, hide, 70-94 jellygrams, bgs., c.l., dlvd. lb. .18 - —
95-149, bgs., c.l., dlvd lb. .19 - —
122-149, bgs., c.l., dlvd lb. .20½- —
150-177, bgs., c.l., dlvd lb. .22½- —
178-206, bgs., c.l., dlvd lb. .25 - —

Make Eastman your assured supply of

When you're talking about 2-ethylhexanol, you're talking about a 100,000,000-lb. a year alcohol and a chemical of major industrial importance.

Eastman's position as a basic manufacturer of 2-ethylhexanol from petroleum derived raw materials is your assurance of a dependable supply of this important alcohol, both from the standpoint of quantity and quality.

In placing your next order for 2-ethylhexanol, consider all the advantages you gain through an *Eastman* contract.

2-ETHYLHEXANOL

SPECIFICATIONS:

Color, APHA	5 max
Specific Gravity, 20°/20° C.	0.8325-0.8345
Acidity, as acetic acid	0.01% by wt. max.
Boiling range, 760 mm.	182.0°-186.0° C.
Aldehydes, as 2-Ethylhexanal	0.20% by wt. max.
Sulfuric Acid Test Color, APHA	75 ppm. max.
Phthalate Test Color, APHA	100 ppm. max.

Eastman
CHEMICAL PRODUCTS, INC.
KINGSPORT, TENNESSEE
subsidiary of EASTMAN KODAK COMPANY

SALES OFFICES: Eastman Chemical Products, Inc., Kingsport, Tenn.; Atlanta; Chicago; Cincinnati; Cleveland; Detroit; Framingham, Mass.; Greensboro, N. C.; Houston; New York; Philadelphia; St. Louis. West Coast: Wilson & Geo. Meyer & Company, San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

Glue, hide, 207-236, bgs., c.l., dlvd..lb. .28 - —
237-266, bgs., c.l., dlvd.....lb. .30½- —
267-298, bgs., c.l., dlvd.....lb. .32½- —
299-330, bgs., c.l., dlvd.....lb. .34½- —
331-362, bgs., c.l., dlvd.....lb. .36½- —
363-394, bgs., c.l., dlvd.....lb. .38 - —
395-427, bgs., c.l., dlvd.....lb. .40 - —
428-460, bgs., c.l., dlvd.....lb. .42 - —
461-494, bgs., c.l., dlvd.....lb. .44 - —
495-529, bgs., c.l., dlvd.....lb. .46 - —
Hide glue, l.c.l., prices 2c. higher.
l-Glutamic acid, 99½%, fib. dms., 100-lb. lots, frt. alld..lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb. 1.88 - —
l-Glutamine, bots., 1-9 kilo lots, kilo.150.00 -300.00
Bots., 50-kilo lots.....kilo.100.00 - —
Bots., 500-kilo lots.....kilo. 75.00 - —
Glycerine, dom., nat., crude, saponification, 88%, tanks, dlvd..lb. .21¼- —
nat., crude, soaplye, 80%, tanks, dlvd..lb. .19¼- —
nat., refd., USP, CP, 99%, dms., c.l., dlvd..lb. .30⅞- —
dms., l.c.l., dlvd.....lb. .31⅝- —
tanks, dlvd. .....lb. .29⅛- —
Glycerine, dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd..lb. .30 - —
dms., l.c.l., dlvd.....lb. .30¾- —
tanks, dlvd. .....lb. .28¼- —
nat., high gravity, dms., c.l., dlvd..lb. .30¾- —
dms., l.c.l., dlvd. .....lb. .31½- —
tanks, dlvd. .....lb. .29 - —

Glycerine, dom., syn., dms., c.l., dlvd..lb. .31 - —
dms., l.c.l., dlvd. .....lb. .31¾- —
tanks, dlvd. .....lb. .29¼- —
Imp., nat., crude, soaplye, 80%, c.i.f..lb. .18½- —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glycolic acid (see Hydroxyacetic acid).
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works..lb. .40 - —
dms., l.c.l., same basis.....lb. .42 - —
tanks, same basis.....lb. .39 - —
Glyoxal, 30%, dms., c.l., works..lb. .20½- —
dms., l.c.l., works.....lb. .21¼- —
tanks, works .....lb. .18 - —
Golden seal root, NF, tested, bls. lb. 2.75 - 3.25
Gramicidin, 1 to 5 kilos, f.o.b. works, gram. 4.70 - —
Grapefruit oil, dms.....lb. 3.50 - —
Graphite, amorp., powd., bgs., fib. dms., ex whse..lb. .06 - .09½
Cryst., 88-90%, powd., bgs., fib. dms., ex whse..lb. .19 - .21½
90-92%, powd., bgs., fib. dms., ex whse..lb. .21 - .24½
95-97%, powd., bgs., fib. dms., ex whse..lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse..lb. .29 .31
No. 2, 90-95%, bgs., fib. dms., ex whse..lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd..lb. .07 - —
Yellow, tanks, dlvd. .....lb. .05½- .05¼

Grease oil, No. 1, dms., c.l. ....lb. .13¾- —
dms., l.c.l. .....lb. .14¾- .15¾
Extra winter, strained, dms., c.l. lb. .16¼- —
dms., l.c.l. .....lb. .17¼- .18¼
Prime, burning, dms., c.l. ....lb. .17¾- —
dms., l.c.l. .....lb. .18¾- .19¾

GREEN PIGMENTS
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green.

Grindelia robusta herb, bls. ....lb. .40 - —
Guaiacol, NF, cryst., dms., tins..lb. 2.10 - 2.15
NF, liq., cbys., dms. .....lb. 2.30 - 2.40
Guaiacol carbonate, NF VII, dms lb. 3.40 - 3.45
Guaiacwood oil, cns. .....lb. .65 - .80
Guar gum, food grade, bgs., c.l..lb. .38 - —
bgs., 5,000 lbs or more.....lb. .39 - —
Indust., bgs., c.l.....lb. .32 - —
Tech grade, bgs. .....lb. .30 - .33

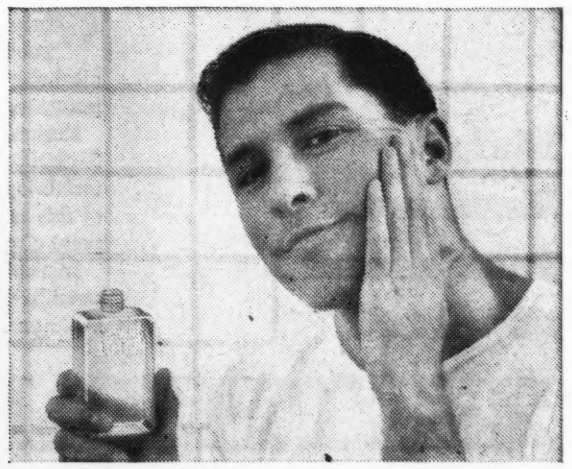
GUMS
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum.

H

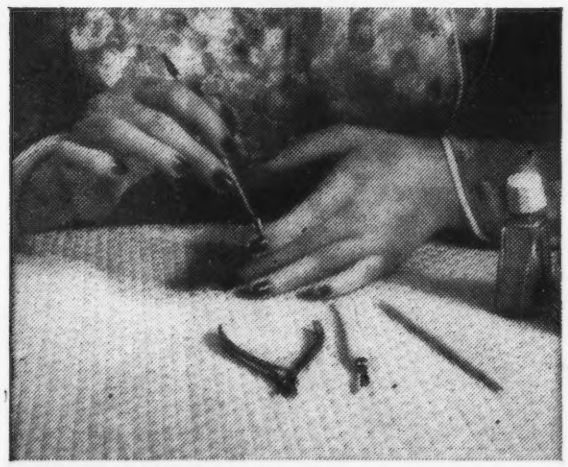
H acid, dry, bbls., c.l., frt. alld., 100% basis..lb. .90 - —
bbls., l.c.l., same basis ....lb. .95 - —
Hansa yellow, 10 G, bbls., dlvd. E. of Rockies..lb. 2.45 - —
Hansa G yellow, pigment, bbls..lb. 2.20 - —
Hawthorn berries, bgs. .....lb. .18 - .20
Heliotropin, 100-lb. lots, dms.....lb. 2.60 - 3.40

Hellebore root, dom., green, bls..lb. .70 - .75
Helonias root, bls. .....lb. 1.50 - —
Hemlock oil, cns. .....lb. 2.55 - 3.00
Henbane leaves, bls.....lb. .40 - .45
Heptachlor, dms., c.l., t.l., frt. alld., 100% basis..lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 - —
Houston, Texas .....gal. .1625- —
Hesperidin, purif., 100-lb. fib. dms., f.o.b., works..lb. 8.95 - —
Hesperidin methylchalcone, bots., 50-lb. lots, works..lb.22.50 - —
bots., 5-lb. lots, works.....lb.23.00 - —
bots., 1-lb. lots, works.....lb.23.50 - —
Hexachlorophene, dms., 1,100 lbs. or more..lb. 1.84 - —
dms., to 1,100 lbs. .....lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine, tech., bgs., 20,000-lb. lots or more, Perth Amboy or New York City..lb. .233 - —
Hexamethylenetetramine, tech., bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs., smaller lots, same basis..lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib. dms., smaller lots, same basis..lb. .253 - —
USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½- —
bgs., smaller lots, same basis lb. .43½- .48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 - —
Houston, Texas .....gal. .16 - —
l-Hexanol, dms., c.l., works.....lb. .35 - —
dms., l.c.l., works.....lb. .35¾- —
tanks, works .....lb. .33 - —
Hexyl cinnamic aldehyde, dms..lb. 4.00 - 7.50
n-Hexyl methacrylate, dms., c.l., works..lb. .75½- —
dms., l.c.l., works.....lb. .76 - —
Hexyl salicylate, dms. .....lb. 1.75 - —
Hexylene glycol, dms., c.l., dlvd..lb. .17½- —
dms., l.c.l., dlvd. .....lb. .19 - —
tanks, dlvd. .....lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more, dlvd..lb.14.00 - —
dms., smaller lots, dlvd. ....lb.14.50 - —
Homatropine hydrobromide, USP, bots. oz. 3.25 - —
Homatropine methylbromide, USP, bots oz. 3.25 - —
Hoofmeal, 17-18% ammonia, bulk, c.l., Chicago..unit-ton. 6.75 - —
Horehound herb, bls. .....lb. .18 - .20
Hydrastis (see Goldenseal).
Hydrazine hydrate, 85% ret. dms., works..lb. 1.35 - 1.55
100%, ret. dms., works.....lb. 1.60 - 1.90
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb. 2.92 - —
Hydroabietyl alcohol, tech., solid, dms., c.l., dlvd. zone 1..lb. .29¼- —
dms., l.c.l., dlvd. zone 1..lb. .29¾- .30¼
tanks, dlvd. zone 1.....lb. .27¼- —
Zone 1 for hydroabieyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.
Hydrobromic acid, medicinal, 48%, cbys., frt. equald..lb. .48 - .56
Hydrochloric acid, anhyd. (see Hydrogen chloride).
Hydrochloric acid, 18°, cbys., c.l., works 100 lbs. 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area..100 lbs. 2.90 - 3.05
tanks, works, frt. equald .ton.28.00 - —
20°, cbys., c.l., works..100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area..100 lbs. 3.15 - —
tanks, works, frt. equald....ton.30.00 - —
Hydrochloric acid, 22°, cbys., c.l., works..100 lbs. 3.25 - —
cbys., l.c.l., dlvd. Metropolitan area..100 lbs. 3.65 - —
tanks, works, frt. equald. ton.35.00 - —
Hydrochloric acid, CP, USP, consumers, cbys., extra, c.l., works..lb. .15¾- —
cbys., l.c.l., same basis..lb. .17¼- .17¾
Hydrochloric acid, 5-pint bots., extra cs., c.l., same basis. lb. .20¾- —
Hydrocortisone acetate, bulk, bots., kilo lots or more..gram. 1.10 - 1.90
Hydrocortisone alcohol, bulk, bots., kilo lots or more..gram. 1.15 - 1.90
Hydrocyanic acid, dilute, NF, 2%, 5-pt. bots., f.o.b. works.. pt. .70 - —
Hydrofluoric acid, anhyd. (see Hydrogen fluoride).
Hydrofluoric acid, aqueous, 70%, 55-gal. or 30-gal. dms., c.l., t.l., dlvd..100 lbs.19.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.20.75 - —
20-gal. dms., c.l., t.l., dlvd. 100 lbs.21.00 - —
20-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs.22.50 - —
tanks, works frt. equald. 100 lbs.13.40 - —
Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.70 per cwt. for drum delivery.
Hydrofluosilicic acid, dms., works, 30% basis lb. .06 - —
Hydrofuramide, dms., fib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works ... lb. .55 - .60
Hydrogen chloride, anhyd., 50-lb. cyls., l.c.l., works lb. .45 - —
Hydrogen cyanide, liq., 98%, tanks, works lb. .14 - —
Hydrogen fluoride, anhyd., cyls., dlvd. E lb. .30½- .32½
cyls., dlvd W. .....lb. .39 - —
tanks, works .....lb. .18 - —
Hydrogen peroxide, 35%, dms., c.l., dlvd..lb. .202 - —
dms., l.c.l., dlvd. .....lb. .211 - —
tanks, dlvd. .....lb. .1800- —
Hydroquinone, photo grade, dms., 50-lbs., f.o.b. works..lb. 1.10 - —
Tech., dms., c.l., dlvd. .....lb. .82½- —
dms., l.c.l., dlvd. .....lb. .84½- —
Hydroquinone monomethyl ether, dms., t.l., dlvd..lb. 2.59 - —
dms., l.t.l., dlvd. .....lb. 2.61 - —
Hydroxyacetic acid, tech., 70% dms., Philadelphia and Chicago..lb. .11 - —
tanks, Belle, W. Va. .....lb. .073 - —
Hydroxycitronellol, cns. .....lb. 4.85 - 5.75
Hydroxyethyl cellulose, add grades, fib. dms., 20,000-lb. lots or more, f.o.b. shipping point lb. .84 - —
fib. dms., 2,000 to 19,999-lb. lots, same basis lb. .89 - —
fib. dms., 100 to 1,999-lb. lots, same basis lb. .93 - —
fib dms., smaller lots, same basis..lb. 1.03 - —
Hyoscine salts (see Scopolamine).
Hyoscyamine hydrobromide, bots.oz. 7.00 - —
Hyoscyamine sulfate, bots. .....oz. 7.00 - —

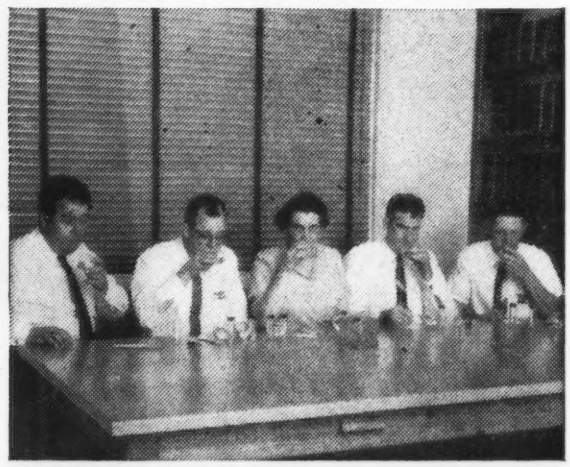
ETHYL ALCOHOL—A valuable ingredient for the high quality perfumes and colognes, Enjay Ethyl Alcohol exhibits superior odor characteristics and exceptional purity. It is ideal for end products where quality of fragrance is essential. Ethyl Alcohol is also available in anhydrous form.



ISOPROPYL ALCOHOL—This lower priced alcohol is free of denaturants and alcohol tax regulations. It can be compounded to produce distinctive bouquets in after-shave lotions, perfumes, colognes, and rubbing alcohols. In anhydrous form it is recommended where extra dryness is a desired factor.



ETHYL ACETATE—An ideal solvent for many nail polish lacquers, Ethyl Acetate helps assure complete blending of nail polish ingredients. This means the lacquer can be applied smoothly, evenly and easily...and provides a sparkling finish.



TECHNICAL ASSISTANCE — At the Enjay laboratories expert technical assistance and the latest testing facilities are available. One of these is the odor panel shown above . . . another way Enjay serves the cosmetics industry.

HOW ENJAY SERVES...the cosmetics industry

Enjay offers the cosmetics industry the following high quality materials for all types of cosmetics, perfumes, colognes, aerosols, and after-shave lotions: Ethyl Alcohol • Isopropyl Alcohol • Anhydrous Ethyl Alcohol •Anhydrous Isopropyl Alcohol • Ethyl Acetate • Acetone.

For technical assistance or to order Enjay chemicals contact the nearest Enjay office.

HOME OFFICE: 15 West 51st Street, New York 19, New York. OTHER OFFICES: Akron • Boston • Charlotte • Chicago • Detroit • Houston • Los Angeles • New Orleans • Tulsa

EXCITING NEW PRODUCTS THROUGH PETRO-CHEMISTRY

ENJAY CHEMICAL COMPANY

A DIVISION OF HUMBLE OIL & REFINING COMPANY

ENJAY
PETROCHEMICALS

Hypophosphorous acid, purif., 50%, 10-cbys., f.o.b. works....lb. 1.95 - —
NF, 50%, 10-cbys., same basis..lb. 1.35 - —

I

Ichthammol, NF, dms. .....lb. .75 - 1.05
Indigo (see Dyes, coaltar, 1171 indigo, syn.).
Indole, CP, bots. .....lb.13.75 -15.00
Inositol, 50-100 lb. dms., 1,000 lbs. or more, dlvd..lb. 4.50 - —
Inositol, 50-lb. lbs., less than 1,000 lb., dlvd..lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd.....lb. 5.25 - —
Insect flowers (see Pyrethrum).
Iodine, crude, kgs. .....lb. .95 - —
Resub., USP, dms., f.o.b. works lb. 2.00 - 2.02
Iodochlorohydroquinolin, USP, dms. lb. 3.60 - —
Iodoform, NF, dms., 300-lbs., f.o.b. works..lb. 4.90 - —
dms., 100-lbs., same basis....lb. 5.05 - —
a-Ionone, cns. .....lb. 4.60 - 5.75
b-Ionone, cns. .....lb. 4.15 - 6.15
Ipecac root, whole, bgs. .....lb. 8.00 - 8.50
Powd., bbls., bxs. .....lb. 9.50 -10.00
Irish moss, bleached, prime, bls..lb. .25 - .27
Iron blue, alkali-resisting, bbls., c.l., dlvd. E..lb. .57 - —
bbls., l.c.l., ton lots, same basis. lb. .58 - —
bbls., smaller lots, same basis.lb. .59 - —
Dom., reg., bbls., c.l., dlvd. E..lb. .52 - —
Iron blue, alkali-resisting, dom., reg., bbls., l.c.l., ton lots, same basis..lb. .53 - —
bbls., l.c.l., smaller lots, same basis lb. .54 - —
Imp., British, reg., bbls., c.l., dlvd. E..lb. .48 - —
bbls., l.c.l., ton lots, same basis..lb. .49 - —
bbls., l.c.l., smaller lots, same basis..lb. .50 - —
Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont., Wyo., Utah, Col. and Nev.
Iron compounds (see Ferric or Ferrous).
Iron oxide, black, pure, bgs., c.l., works..lb. .14¾- —
bgs., l.c.l., works.....lb. .15 - —
Iron oxide, brown, pure, bgs., c.l., works..lb. .14¼- —
bgs., l.c.l., works..... lb. .14½- —
Iron oxide, metallic, brown, bgs., works lb. .05¼- —
Iron oxide, Persian Gulf, red., bgs., c.l., works..lb. .08¾- —
Iron oxide, red, dom., pure, bgs., Bethlehem, E. St. Louis, New York City..lb. .14¼- —
Iron oxide, red, nat., 75-85% ferric oxide, bgs., c.l., works..lb. .06¼- —
bgs., l.c.l., works.....lb. .06½- —
Iron oxide, Spanish red, bbls., c.l., ex dock..lb. .05¾ Nom.
bbls., l.c.l., ex dock .....lb. .06 Nom.
bbls., l.c.l., ex whse. New York. lb. .06½ Nom.
Iron oxide, yellow, nat., French type, bgs., c.l., works..lb. .06¼- —
Peruvian type, bgs., l.c.l..lb. .023 - .024
Iron oxide, yellow, pure, light lemon shade, bgs., c.l., works..lb. .12¼- —
Other shades, same basis..lb. .12 - —
Isoamyl alcohol, dms., c.l., works, frt. alld E..lb. .27½- —
dms., l.c.l., same basis.....lb. .29 - —
tanks, same basis.....lb. .25 - —
Isoborneol, cns. .....lb. 1.44 - 1.80
Isobornyl acetate, cns. .....lb. .46 - .56
Isobornyl formate, dms. .....lb. 1.20 - —
Isobornyl proprionate, dms. .....lb. 1.25 - 1.35
Isobutyl acetate, perfume grade, cns..lb. .35 - —
Isobutyl acetate, solvent grade, dms., c.l., dlvd. E. of Rockies..lb. .15¼- —
dms., l.c.l., same basis.....lb. .16¾- —
tanks, same basis.....lb. .12¾- —
Isobutyl alcohol, dms., c.l., dlvd lb. .15½- —
dms., l.c.l., dlvd. .....lb. .17 - —
tanks, dlvd. .....lb. .13 - —
Isobutylene, 99%, tanks, works..gal. .38 - —
Isobutyl isobutyrate, dms., f.o.b. works..lb. .75 - —
Isobutyraldehyde, CP, dms., c.l., dlvd..lb. .27½- —
dms., l.c.l., dlvd. .....lb. .28½- —
Tech., dms., c.l., dlvd. .....lb. .22 - —
dms., l.c.l., dlvd. .....lb. .23 - —
tanks, dlvd. .....lb. .19½- —
Isobutyronitrile, dms., c.l., dlvd..lb. .52 - —
dms., l.c.l., same basis.....lb. .57 - —
Isobutyric acid, dms., c.l., t.l., dlvd. lb. .33 - —
dms., l.c.l., l.t.l., same basis..lb. .36½- —
t.c. t.t., same basis.....lb. .33 - —
Isoeugenol, cns. .....lb. 3.40 - 4.25
Isoniazid, powd., bulk, kilo or more kilo.18.00 - —
Isonicotinic acid, 100-lb. fib. dms., works..lb. 4.25 - —
Isonicotinic acid hydrazide (see Isoniazid).
Iso-octyl alcohol, dms., c.l., dlvd. E. lb. .23½- —
dms., l.c.l., dlvd. E. .....lb. .25 - —
tanks, dlvd. E. .....lb. .21 - —
Isopentane, com'l. grade, tanks, f.o.b. Tex. refy..gal. .16½- —
Isophorone, dms., c.l., works....lb. .24½- —
dms., l.c.l., works.....lb. .25¼- —
tanks, works .....lb. .22½- —
Isophthalic acid, dms., c.l., works, frt. equald..lb. .18 - —
dms., l.c.l., same basis.....lb. .19 - —
Isopropanol (see Isopropyl alcohol).
Isopropyl acetate, dms., c.l., dlvd. lb. .14 - —
dms., l.c.l., same basis.....lb. .15½- —
tanks, same basis.....lb. .11½- —
Isopropyl alcohol, refd., 91%, dms., c.l., dlvd..gal. .58 - —
dms., l.c.l., dlvd. .....gal. .68 - —
tanks, dlvd. .....gal. .42 - —
Isopropyl alcohol, refd., 95%, c.l., dms., dlvd..gal. .60 - —
dms., l.c.l., dlvd. .....gal. .70 - —
tanks, dlvd. .....gal. .44 - —
anhyd., c.l., dlvd. .....gal. .62 - —
dms., l.c.l., dlvd. .....gal. .72 - —
tanks, dlvd. .....gal. .46 - —
Isopropyl benzene (see Cumene).
Isopropyl ether, dms., c.l., dlvd..lb. .09½- —
dms., l.c.l., dlvd. .....lb. .11 - —
tanks, dlvd. .....lb. .07 - —
Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms., c.l., t.l., works..lb. 1.00 - —
dms., l.c.l., works.....lb. 1.05 - 1.25
tanks, works .....lb. .99 - —
Isopropylamine (see Mono, Di, or Tri-).
Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l., works..lb. .75 - —
450-lb. fib. dms., l.c.l., works..lb. .80 - .90
Isoquinoline, dms., works.....lb. .65 - 1.25

Itaconic acid, refd., bgs., c.l., f.o.b. works..lb. .53½- —
bgs., l.c.l., same basis.....lb. .54½- —
Tech., bgs., c.l., same basis..lb. .38½- —
bgs., l.c.l., same basis.....lb. .39½- —

J

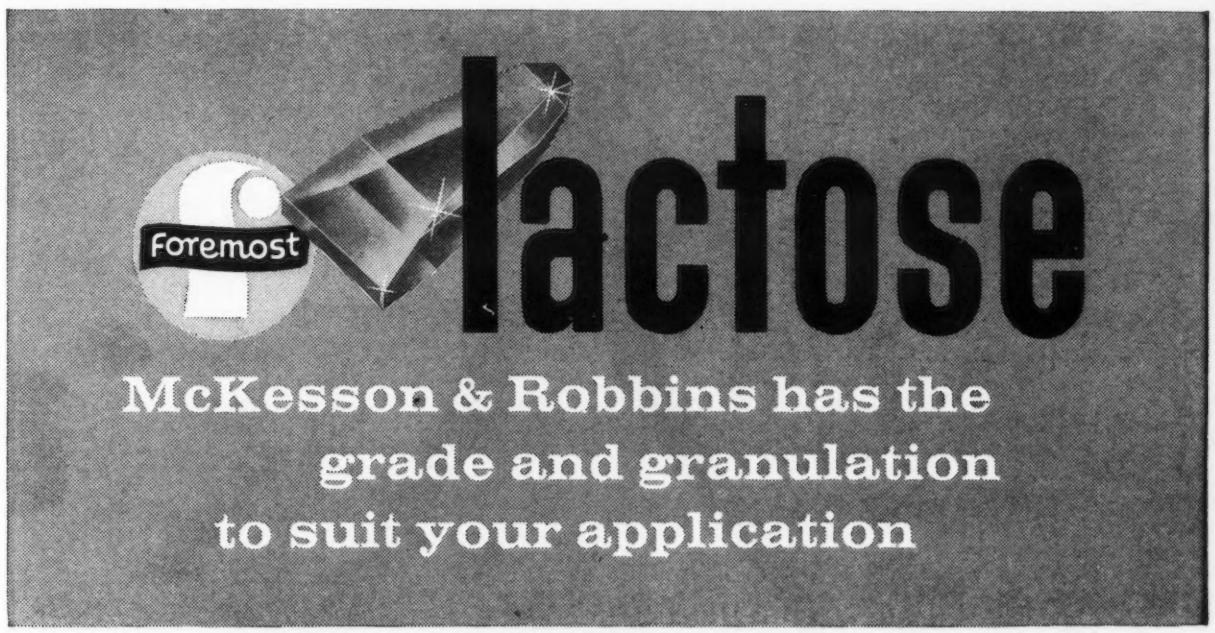
J acid, paste, bbls., works, 100% basis..lb. 2.70 - —
Powd., bbls., same basis.....lb. 2.75 - —
Jalap root, NF, bls. .....lb. .60 - —
NF, powd., bbls., bxs. .....lb. .70 - .75
Japan wax, cs. .....lb. .29 - .31
Juniper berries, bgs. .....lb. .16 - .17
Juniper berry oil, NF, bots. .....lb. 2.90 - 3.75
Twice rectified, bots. .....lb. 3.25 - —
Juniper tar oil, NF, dms. .....lb. .42 - .60
Juniper wood oil, tech., cns. ....lb. .38 - .55

K

Kaolin (see also Clay, China).
Kaolin, NF, powd., fib. dms.....lb. .10 - .12
NF, colloidal, 50-lb. bgs. .....lb. .15½- .17½
Karaya gum, No. 1, NF, powd., bls..lb. .48 - .50
No. 2, powd., bbls. .....lb. .43 - .45
No. 3, powd., bbls. .....lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis..lb. 1.00 - —
Kola nuts, bgs. .....lb. .13 - .15

L

L acid, bbls., works.....lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York..gal. .20 - —
Group 3 .....gal. .15125- —
Houston, Texas .....gal. .16 - —
Lacquer diluent, petroleum, 200°F-240°F b.r., tankcars, New Jersey or New York..gal. .20 - —
Group 3 .....gal. .14125- —
Houston, Texas .....gal. .16 - —
Lactic acid, edible, 50%, bbls. dms., c.l., frt. equald.....lb. .1985- —
bbls., dms., 20 or more, frt. equald..lb. .2035- —
bbls., dms., 5 to 19, frt. equald. lb. .2085- —
bbls., dms., 1 to 4, frt. equald. lb. .2135- —
Lactic acid, edible, 80%, bbls., c.l., dms., frt. equald..lb. .3335- —
bbls., dms., 20 or more, frt. equald..lb. .3385- —
bbls., dms., 5 to 19, frt. equald. lb. .3435- —
bbls., dms., 1 to 4, frt. equald. lb. .3485- —
Plastic grade, 50%, c.l., bbls., works..lb. .2740- —
bbls., 20 or more, works..lb. .2790- —
bbls., 5 to 19, works.....lb. .2840- —
bbls., 1 to 4, works.....lb. .2890- —
80%, bbls., c.l., works.....lb. .4625- —
bbls., 5 to 19, works.....lb. .4725- —
bbls., 1 to 4, works.....lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs.12.45 - —
bbls., l.c.l., works.....100 lbs.12.85 - —
USP, 85%, cbys. .....lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald. lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald..lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
Lactose, ferment, grade, bgs., c.l., works..lb. .08½- —
Lactose, USP, reg., fib. dms., 30,000-lb. lots, frt. equald..lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald..lb. .22¼- —
200-1,880-lb. lots, frt. equald..lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
Lactose, USP, spray dried, bgs., t.l., frt. equald..lb. .18½- —
bgs., l.t.l., frt. equald....lb. .19 - .19¾
Lady's slipper root, bls.....lb. 3.00 - 3.50
Lamp black, bgs., c.l., works....lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works..lb. .24 - .26
USP, annyd., cosmetic, 400-lb. dms., works..lb. .26 - .30
USP, hydrous, 400-lb. dms., works. lb. .24 - —
Lard, cash, dms., Chicago .....lb.11.70 - —
Lard oil (see Grease oil).
Larkspur seed, bgs. .....lb. .55 - —
Laurel leaf oil, dms., cns.....lb. 9.75 -.12.50
Laurent's acid, bbls.....lb. .70 - —
Lauric acid, pure, dms. .....lb. .33¾- .36¼
tanks .....lb. .32¾- —



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Lauryl alcohol, bots ..... lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms., l.t.l., works ..... lb. .66 - —
Lavandin oil, 22-24%, dms. .... lb. 1.10 - 1.50
Abrial, dms. ..... lb. 1.00 - 1.50
Lavender flowers, medium, bls lb. .55 - .60
Ord., bls. ..... lb. .20 - .25
Select., bls. ..... lb. .90 - 1.00
Lavender flower oil, USP, French, 35-37% ester, cns lb. 1.85 - 4.00
40-42% ester, cns. ..... lb. 5.00 - 7.75
Spike, Spanish, cns. ..... lb. 2.20 - 3.00
Lead acetate, NF, cryst., gran., powd., bbls lb. .34½- —
White, cryst., bbls. ..... lb. .25½- —
gran., bbls. ..... lb. .26½- —
powd., bbls. ..... lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld, on $150 or more lb. .30½- —
1-lb bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis ..... lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, dms. ..... lb. .52 - —
Lead iodide, NF, V jars ..... lb. 3.82 - —
Lead linoleate fused, 26% Pb, dms. lb. .38 - —
Lead metal prime, pigs, New York. lb. .12 - —
St. Louis ..... lb. .1180- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1385- —
bgs., l.c.l., same basis ..... lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., dlvd lb. .19½- —
24% Pb., dms., dlvd. ..... lb. .24¼- —
Solid, 37% Pb., dms., dlvd. .. lb. .31¾- —
Lead nitrate, bbls. ..... lb. .24¼- .26¾
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works. lb. .41 - —
Lead, red, 95% Pb_3O_4 or less, bbls., c.l., works, frt. equald. lb. .1475- —
bbls., l.c.l., same basis lb. .1575- —
97% Pb_3O_4, bbls., c.l., same basis lb. .1495- —
bbls., l.c.l., same basis lb. .1595- —
98% Pb_3O_4, bbls., c.l., same basis lb. .1510- —
bbls., l.c.l., same basis lb. .1610- —
Lead resinate precip. 23% Pb, dms., ton lots, dlvd lb. .43¾- —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis ..... lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms lb. .17¼- —
24% Pb, dms. ..... lb. .26¾- —
Solid, 30% Pb, dms. ..... lb. .23¼- —
Lead, white, basic carbonate, bgs., c.l., shipt pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis ..... lb. .19 - —
basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., l.c.l., same basis ..... lb. .17½- —
basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .17 - —
bgs., l.c.l., same basis ..... lb. .18 - —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
Lecithin, edible, tech., unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 100-lb. package, works lb. 6.45 - —
Lemon oil, USP, Calif., cns., dms. lb. 1.25 - 1.50
Messina, cns. ..... lb. 3.25 - 4.00
Lemongrass oil, cns., dms. ..... lb. 2.00 - 2.20
dl-Leucine, dms., works ..... lb. 12.25 -15.00
Licorice root, gran., bls. ..... lb. .13 - —
Powd., bls. ..... lb. .15 - .16
Whole, bls. ..... lb. .09 - .10
Lignaloe wood oil, Mexican, cns lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate).
Lilac oil ..... lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs., works, E. ton. 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton. 17.25 - —
spray, bgs., c.l., same basis ton. 18.25 - —
For New York delivery, add $6.29 freight charge.
Lime oil, dist., Mexican, cns ..... lb. 5.75 - —
West Indian, cns. ..... lb. 5.75 - —
Expressed, West Indian, cns ..... lb. 7.75 - 8.75
Lime salts (see Calcium).
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100%, dms., works .... lb. 2.40 - 2.75
Linalyl acetate, ex bois de rose, 90-92%, dms. lb. 2.65 - 4.50
96-98%, dms. ..... lb. 3.25 - —
Syn., 98-100%, dms., works .... lb. 2.75 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
Lindane, tech., to formulators, 250-lb. dms., 5,000 lbs., dlvd. lb. 2.13 - —
100-lb. dms., 5,000-lbs., dlvd. lb. 2.15 - —
250-lb. dms., less than 5,000-lbs., dlvd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs., dlvd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. ..... lb. .42 - .45
Linseed meal, expeller, 32% bulk, Minneapolis, mills ton. 58.50 - —
Extracted, 34% bulk, same basis. ton. 52.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1630- —
dms., l.c.l., New York .... lb. .1720- .1770
tanks, f.o.b. Minneapolis ... lb. .1270- —
tanks, New York ..... lb. .1381- —
tankwagon, New York ..... lb. .1431- —
Boiled linseed oil, .006c. per lb higher.
Linseed oil, acid, dist., dms .. lb. .1980- —
Water-white, dms. ..... lb. .2280- —
Litharge, coml., powd., bbls., c.l., works, frt. equald lb. .1425- —
bbls., l.c.l., same basis .... lb. .1525- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 -39.00
Lithium benzoate, dms. ..... lb. 1.65 - 1.67
Lithium bromide, NF, gran., bgs., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., c.l., t.l., dlvd lb. 1.29½- —
dms., ton lots to t.l., dlvd lb. 1.30 - 1.30½
Tech., dms., c.l., frt. alld ..... lb. .67 - —
dms., t.l., same basis ..... lb. .73 - —
dms., ton lots, same basis .... lb. .76 - —
dms., smaller lots, f.o.b., plant. lb. .81 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23½- —
Tech., anhyd., dms., c.l., t.l., dlvd. or works, frt. alld. lb. .87 - —
dms., l.c.l., same basis ..... lb. .88 - .92
Lithium citrate, NF, dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, dlvd. lb. 2.15 - —
bbls., ton lots and more, dlvd. lb. 2.18½- —
bbls., less ton lots, dlvd. ..... lb. 2.23½- —
Lithium hydride, powd., dms., 500-lbs. lots or more, works. lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld. lb. .72 - —
dms., l.c.l., frt. alld. ..... lb. .73 - —
Lithium manganite, dms., works lb. .95 - 1.05
Lithium nitrate, tech., dms., 100-lb. lots lb. 1.15 - 1.25
Lithium salicylate, dms. ..... lb. 1.60 - 1.70
Lithium silicate, dms., works .... lb. 1.10 - 1.20
Lithium stearate, dms., c.l., works. lb. .47½- —
dms., ton lots, works ..... lb. .48½- —
dms., less-ton lots, works ..... lb. .53½- —
Lithium sulfate, dms., 100-lb. lots. lb. 1.15 - 1.25
Lithium titanate, dms., works .. lb. 1.15 - 1.25
Lithol red toner, barium, bbls., works lb. .98 - —
Lithol-rubine red toner, pure, bbls., works lb. 1.50 - —
Resinated, bbls., works ..... lb. 1.47 - —
Lithopone, ord., bgs., c.l., dlvd. E. lb. .08⅜- —
bgs., l.c.l., dlvd. E ..... lb. .09⅛- —
Titanated (high-strength), bgs., c.l., dlvd. lb. .11 - —
bgs., l.c.l., dlvd. ..... lb. .12 - —
Lobelia herb, bls. ..... lb. .55 - —
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —
Locust bean gum, powd., bgs. ... lb. .35 - .40
Lycopodium, cs. ..... lb. 3.25 - 3.50
l-Lysine monohydrochloride, 25-lb. dms. lb. 4.95 - —

M

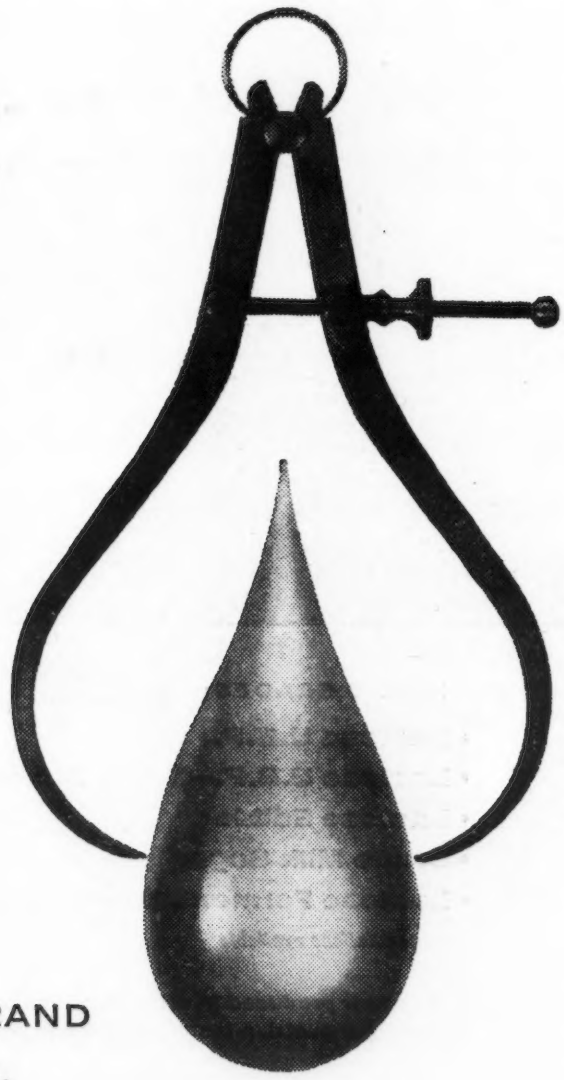
Mace, Siauw, No. 1, bls. ..... lb. 1.90 - —
No. 2, whole, bls. ..... lb. 1.65 - —
siftings, bls. ..... lb. 1.60 - —
Mace oil, dist., cns., dms ..... lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., cns., frt equald lb. .25¾- .26⅛
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald. lb. .28 - —
bgs., l.c.l., frt. equald. lb. .28¾- —

Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points

Magnesia, calcined, tech., heavy, 85%, bgs., c.l., f.o.b. Lunning, Nev ton. 39.50 - —
91%, bgs., c.l., same basis. ton. 49.50 - —
95%, bgs., c.l. same basis. ton 59.00 - —
USP, light, bgs. ..... lb. .36½- .37⅛
USP, heavy, bgs. ..... lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt. equald ton. 86.25 - —
Chemical grade, deadburnt, standard grain, bulk., c.l., Chawelah, Wash. .. ton. 46.00 - —
Magnesium bromide, cs., jars lb. .95 - 1.00
Magnesium carbonate, tech., bgs., c.l., frt. equald. lb. .11 - —
bgs., t.l., frt. equald ..... lb. .11½- —
bgs., l.c.l., frt. equald ..... lb. .13½- .14
Magnesium carbonate, USP, bgs., c.l., frt. equald. lb. .13½- —
bgs., t.l., frt. equald ..... lb. .14 - —
bgs., l.c.l., frt. equald ..... lb. .15 - 16

. Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.

Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l., works lb. .12¾- —
dms., l.c.l., works ..... lb. .14 - .15
Hydrous, 99%, flake, bgs., c.l., works ton. 55.00 - —
bgs., l.c.l., works ..... ton. 65.00 -80.00
Magnesium gluconate, 100-lb. dm., f.o.b. works, E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- .25⅛
Magnesium lauryl sulfate, dms., c.l., frt. alld. lb. .22½- —
dms., l.t.l., frt alld. ..... lb. .23½- —
tanks, frt. alld. ..... lb. .21½- —



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Every container—from 7-pound tin to 385-pound drum—is packed and sealed in a spotless, modern plant. Every drop is guaranteed to be pure, U.S.P. quality oil—unadulterated, unsophisticated. Always look for the word "Exchange" on the tamper-proof container seal.

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California Cold Pressed

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Fritzsche Brothers, Inc., 76 Ninth Ave., New York 11, N.Y.
Ungerer & Co., 161 Avenue of the Americas, New York 13, N.Y.

Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works..lb .36 • —
pigs, 10,000-lb. lots or more, works..lb. .35¼- —
sticks, cs., works, frt. alld on carlots..lb. .59 • —
Magnesium nitrate, cryst., dms., works..lb. .29 • —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls..lb. .75 • —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works..lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works..100 lbs. 2.15 • —
bgs, l.c.l., works.....100 lbs. 2.90 • 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 • —
bgs., l.c.l., 5,000 lbs., 1 withdrawal..100 lbs. 3.10 • —
bgs., smaller lots.....100 lbs. 3.35 • —
Magnesium trisilicate, USP, fib. dms., 5,000-lb. lots..lb. .38 • —
fib. dms., 1,000-lb. lots.....lb. .40 • —
fib. dms., 100-lb. lots.....lb. .45 • —
Bulky and super grades of magnesium trisicilate 7c. per. lb. higher.
Malachite green, straight, PTA, bbls., works..lb. 5.30 • —
Malathion, dms., c.l., works.....lb. .89 • —
dms., l.c.l., works.....lb. .92 • 1.01
Maleic acid, cryst., powd., dms..lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald..lb. .24 • —
dms., l.c.l., frt. equald.....lb. .25½- —
tanks, frt. equald .....lb. .22½- —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms.....lb. .50 • —
Mandelic acid, NF, dms., 1,000-lb. lots..lb. 2.35 • —
dms., smaller lots.....lb. 2.40 • 2.50
Mandrake root, bls.....lb. .40 • —
Manganese acetate, dms., dlvd....lb. .35 • —
Manganese borate, tech., fib. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb. lots and more, works..lb. .11 • .16
Manganese chloride, CP, anhyd., dms., 20,000-lb. lots, works lb. .21¾- —
smaller lots, works.....lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb. lots, burlap paper lined bgs., gross for net works..ton.148.00 • —
40,000 to 99,999-lb. lots, paper bgs., same basis.....ton.144.50 • —
40,000 to 99,999-lb. lots, dms. same basis..ton.152.50 • —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms.....lb. 1.84 • —
Manganese hydrate, dms., dlvd..lb. .35 • —
Manganese hypophosphite, NF, dms. lb. 3.52 • —
Manganese linoleate, liq., 4.35% Mn, dms..lb. .35¾- —
Solid, precip., 8.2% Mn, bbls..lb. .41¼- —
Manganese metal, electrolytic, dms., c.l., dlvd. E. .....lb. .34 • —
dms., ton lots, dlvd. E. .....lb. .36 • —
dms., smaller lots, dlvd. E...lb. .38 • —
Manganese naphthenate, liq., 6% Mn, dms., frt. alld..lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms..lb. .29¼- —
Precip., 6½-7% Mn, dms.....lb. .37 • —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd., S. E..ton.86.50 • —
bgs., l.c.l., dlvd. S. E..ton.93.50 • —
Manganese tallate, 6%, dms.....lb. .26½- —
Manila copal gum, C, bgs. .....lb. .35 • .39
DBB, bgs. .....lb. .25 • .28
DK, bgs. .....lb. No stocks.
DK, dust, bgs. .....lb. .14 Nom.
MA, soft, bgs. .....lb. .20 • .24
WS, bgs. .....lb. No stocks.
Mannitol, com'l, fib. dms., ton lots, works..lb. .60 • —
fib. dms., to ton lots, works..lb. .62 • —
fib. dms., single dm., works..lb. .65 • —
Marine pitch, dms. .....lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works.....lb. .26½- —
bgs., l.c.l., works .....lb. .28 • —
Menadione, USP, bots. .....gram. .044 • .05
Menhaden oil, crude, tanks, works, Atl. & Gulf..lb. .06¼- —
Menthol, nat., USP, Brazilian, large crystals, cs..lb. 8.50 • —
Nat., USP, Brazilian, regular crystals, cs..lb. 8.30 • 8.40
Japanese, cs. .....lb.12.00 • —
Syn., USP, racemic, 25-lb. lots..lb. 4.25 • —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld..lb. .44 • —
bgs., fib. dms. less ton lots, same basis..lb. .46 • —
Mercaptobenzothiazyl disulfide, bgs., fib. dms., ton lots, works, frt. alld..lb. .54 • —
bgs., fib. dms., less ton lots, same basis..lb. .56 • —
Mercuric chloride, NF, cryst., dms., 100 lbs., f.o.b. works..lb. 4.03 • —
USP, gran. or powd., 50-lb. dm., 100 lbs., f.o.b. works..lb. 3.78 • —
Mercuric cyanide, NF VIII, powd., fib. dms..lb. 5.84 • —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works..lb. 6.97 • —
Mercuric oxide, red, NF IX, 50-lb. dm., 100 lbs., f.o.b. works. lb. 4.72 • —
tech., 50-lb. dm., 100 lbs., same basis..lb. 4.52 • —
Mercuric oxide, yellow, NF, 50-lb. dm., 100 lbs., same basis. lb. 4.89 • —
tech., dms., 100 lbs.....lb. 4.35 • —
25-lb. fib. dm. .....lb. 4.38 • —
Mercurous chloride (see Calomel).
Mercurous iodide, yellow, NF, 100-lb. dm., f.o.b. works..lb. 8.22 • —
Mercury, ammoniated (see White precipitate, USP XV).
Mercury metal, 76 lbs. per flask. net-flask.212.00 -215.00
Mesityl oxide, dms., c.l., dlvd....lb. .15 • —
dms., l.c.l., dlvd. .....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline).
Metanilic acid, dms., works .....lb. .57 • .75
Metanitroparatoluidine (see m-Nitro-toluidine).
Metanitroaniline (see m-Nitroaniline).
Metaphenylenediamine (see m-Phenylenediamine).
Metatoluidine (see m-Toluidine).
Metatolylenediamine (see 2,4-Tolylenediamine).

Methacrylic acid, glacial, 98%, dms., truckloads, frt. equald..lb. .42¼- —
dms., smaller lots, frt. equald. lb. .43 • .75
tanks, works, frt. equald..lb. .40 • —
Methanol, nat, denaturing grade, tanks, frt. alld..gal. .85 • —
Syn., zone 1, dms., c.l., or t.l. min., dlvd..gal. .51½- —
dms., l.c.l., dlvd. .....gal. .61½- —
tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area..gal. .35 • —
tankwagon, 4,000 gal. min., dlvd..gal. .30 • —
tankwagon, 4,000 gal. min., f.o.b. terminal..gal. .29 • —
Methanol, syn., zone 2, dms., c.l., or t.l., min. frt. alld. or dlvd. gal. .55½- —
dms., l.c.l., works.....gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd., Metropolitan area..gal. .39 • —
tanks, 4,000 gal. min., dlvd. gal. .34 • —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald..lb.21.73 • —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt. equald..lb.27.25 • —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt. alld. ....lb. 1.10 • —
dms., l.t.l., same basis.....lb. 1.16 • —

dl-Methionine, fib. dms., frt. alld., 50-lb. or more..lb. 3.50 • —
Feed grade, 98%, fib. dms., same basis..lb. 1.55 • —
Methoxychlor, 50% wettable powder, dusters, dms., cs..lb. .66 • —
Methyl abietate, non-ret. dms., c.l., dlvd. zone 1..lb. .21½- —
non-ret. dms., l.c.l., same basis.lb. .22 • .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd. zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis. lb. .24 • .24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn.
Methyl acetone, nat., dms., l.c.l., E. of Miss., frt. alld..gal. .62½- —
Methyl acetone, syn., dms., c.l., frt. alld. E..gal. .66 • —
dms., l.c.l., frt. alld. E. ....gal. .76 • —
tanks, frt. alld. E. .....gal. .51 • —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .39 • —
dms., l.t.l., dlvd. .....lb. .40 • —
tanks, dlvd. .....lb. .37 • —

Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E..lb. .17 • —
dms., l.c.l., dlvd. E. .....lb. .18½- —
tanks, dlvd. E. .....lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 • —
dms., l.c.l., dlvd. .....lb. .18½- —
tanks, dlvd. .....lb. .14½- —
Methyl amyl ketone, dms., works. lb. 1.03 • —
N-Methylaniline, tech., tanks, frt. alld..lb. .60 • —
Methylanthranilate, cns. .....lb. 2.45 • 3.00
Methyl benzoate, cns., dms. ....lb. .60 • .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld..lb. .62 • .65
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works..lb. .82 • —
50-lb. bgs., 2,000-lb. lots and more, same basis.....lb. .89 • —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs..lb. 1.05 • —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld..lb. .69 • —
50-lb. bgs., 2,000-lb. lots and more, same basis.....lb. .76 • —
50-lb. bgs., smaller lots, frt. alld. on 100 lbs..lb. .79 • .82

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137 Boston Post Road, Cos Cob, Conn.

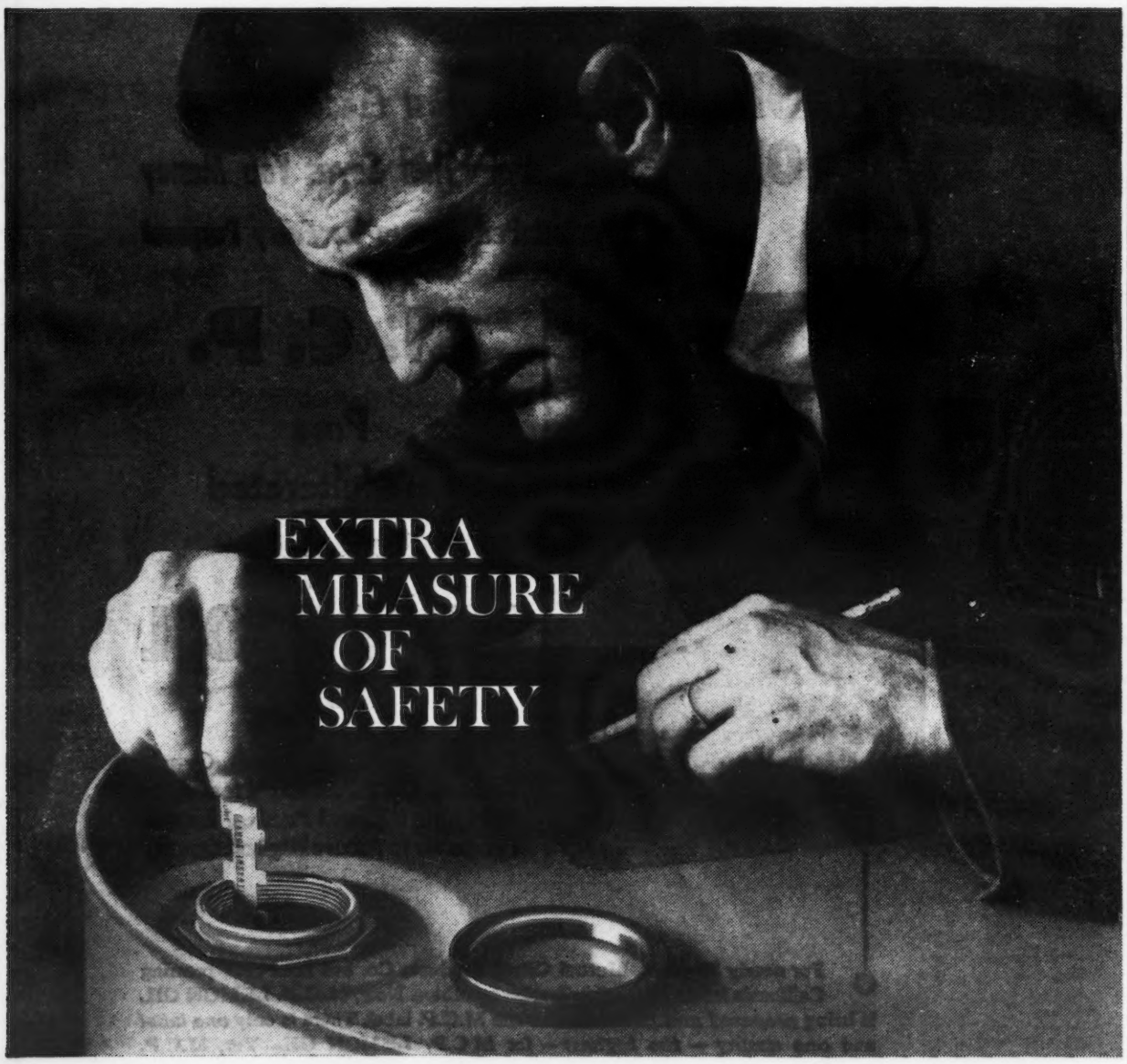
Methyl Chloride—Musk

Methyl chloride, indust., cyls., frt. equald..lb. .22¼- —
tanks, multi-unit, same basis. lb. .16¼- —
tanks, single unit, same basis. lb. .12¾- —
Refrigerator mfrs., cyls., dlvd..lb. .48¾- —
Other consumers or service men, cyls., dlvd..lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns.....lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd..lb. .15 - —
dms., l.c.l., dlvd.....lb. .16½- —
tanks, dlvd. .....lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works..lb. .45 - —
dms., l.c.l., works.....lb. .45¾- —
tanks, works .....lb. .43 - —
Methyl formate, refd., dms.....lb. .35 - .40
Tech., non-ret. dms., any quantity, works..lb. .10 - —
tanks, works.....lb. .07 - —
α-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .21 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. lb. .21½- —
100-lb. multiwall paper bgs., l.t.l., works. lb. .23 - —
Methyl heptin carbonate, bots..lb.27.75 -31.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 - 2.00

Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd..lb. .20 - —
dms., l.c.l., dlvd. .....lb. .20½- —
tanks, dlvd. .....lb. .17½- —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl Ketone, dms., c.l., dlvd..lb. .17 - —
dms., l.c.l., dlvd.....lb. .18¼- —
tanks, dlvd.....lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va..lb. .31 - —
dms., smaller lots, same basis..lb. .31¼- —
tanks, same basis.....lb. .29 - —
Methyl naphthyl ketone, cryst., cns..lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate).
Methyl parathion, tech., 80%, dms., frt. alld. E..lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West.
Methyl roseaniline chloride, NF., 5-lb. fib. dms..lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld..lb. .60¼- —
dms., l.c.l., same basis.....lb. .62½- .67½
Methyl testosterone, USP, 100-gram. bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works..lb. 1.30 - —
5-39 dm. lots, same basis.....lb. 1.35 - —
tanks, same basis.....lb. 1.25 - —

Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies..lb. 2.80 - —
Tungstated, PTMA, bbls., same basis..lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, fib. dms., 100-lb. lots, frt. adjusted.....lb. 3.25 - —
Methylene chloride, tech., straight or assorted, dms., c.l., or t.l., dlvd..lb. .13½- —
dms., l.c.l., l.t.l., dlvd.....lb. .15¾- —
tanks, 4,000-gal. min., dlvd lb. .12¼- —
tanktrucks, 1,000-gal. min., dlvd. lb. .13¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works..lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E..lb. .06½- —
bgs., l.c.l., ex-whse. .....lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld. E. lb. .08¼- —
bgs., l.c.l., ex-whse or freight alld. E..lb. .09 - —
Mica, wet-grd., rubber, bgs., c.l., works, frt. alld. E..lb. .08 - —
bgs., l.c.l., ex-whse, or frt. alld. E..lb. .08¾- —
wallpaper, bgs., c.l., works, frt. alld.E..lb. .08¾- —
bgs., ex-whse. or frt. alld. E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E....lb. .08¼- —
Mica, wet-grd. W. of Miss. ½c. higher; W. of Rockies 1c. higher.

Microcrystalline wax, petroleum, coating grades, tankcars, works..lb. .10 - .11
laminating grades, tankcars, works..lb. .11 - .12
Mineral black, bgs., works.....lb. .0160- .0673
Mineral oil, white, tech., 50-65 vis., non-ret. dms., c.l., f.o.b. refy..gal. .65 - —
50-65 vis., non-ret. dms., l.c.l., basis..gal. .70 - —
tankscars, refy. .....gal. .49 - —
65-75 vis., non-ret. dms., c.l., same basis..gal. .65 - —
non-ret. dms., l.c.l., same basis..gal. .70 - —
tankcars, refy. .....gal. .49 - —
NF, 80-90% vis., non-ret. dms., c.l., same basis..gal. .66 - —
non-ret. dms., l.c.l., same basis..gal. .71 - —
tankcars, refy. .....gal. .50 - —
NF, 135-138 vis., non-ret. dms., c.l., same basis..gal. .72 - —
Mineral oil, white, NF, 135-138 vis., non-ret. dms., l.c.l., same basis..gal. .77 - —
tankcars, rfy. .....gal. .56 - —
NF, 145-155 vis., non-ret. dms., c.l., same basis..gal. .78 - —
non-ret. dms., l.c.l., same basis..gal. .83 - —
tankcars, refy. .....gal. .62 - —
Mineral oil, white, USP, 180-190 vis., non-ret. dms., c.l., same basis..gal. .80½- —
non-ret. dms., l.c.l., same basis..gal. .85½- —
tankcars, refy. .....gal. .64½- —
USP, 200-210 vis., non-ret. dms., c.l., f.o.b. refy..gal. .82½- —
non-ret. dms., l.c.l. .....gal. .87½- —
tankcars, refy .....gal. .66½- —
USP, 340-350 vis., non-ret. dms., c.l., f.o.b. refy..gal. .87½- —
non-ret. dms., l.c.l. .....gal. .92½- —
tankcars, refy. .....gal. .71½- —
(For f.o.b N. Y. add 2c. for tankcars; 2c. for c.l., and 3c. for l.c.l. non-ret. dms.).
Mineral orange, American, bbls., c.l., works..lb. .17 - —
bbls., c.l., same basis.....lb. .18 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York .....gal. .305 - —
Houston, Texas .....gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 .....gal. .12875- —
Houston, Texas .....gal. .145 - —
140 F. flash, New York, New Jersey at terminal..gal. .205 - —
Houston, Texas ....gal. .17 - —
Mink oil, dms. .....lb. 2.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works..lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans..gal. .08¾- .09
tanks, New York .....bbl. .13½- —
Molybdated orange, bbls. .....lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works..kilo. 7.84 - —
325 mesh, ctns., works ..kilo. 9.13 - —
Molybdenum trioxide, purif., dms., works..lb. 1.15 - —
Tech., chemical, dms., works, basis Mo content lb. 1.48 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.47 - —
Molybdic acid, 85%, dms., works. lb. 1.05 - 1.15
Monoallylamine, dms., c.l., dlvd..lb. .935 - —
dms., c.l., dlvd. .....lb. .935 - —
tanks, dlvd. .....lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies..lb. .57½- —
dms., l.c.l., same basis .....lb. .59 - —
tanks, same basis .....lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works..lb. .55 - —
dms., l.c.l., works.....lb. .56 - —
tanks, works .....lb. .54 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., l.c.l., works.....lb. .56 - —
tanks, works .....lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E..lb. .10½- —
dms., l.c.l., same basis.....lb. .11½- —
tanks, same basis .....lb. .08¾- —
Monoethanolamine, dms., c.l., dlvd. E..lb. .27½- —
dms., l.c.l., same basis.....lb. .29 - —
tanks, same basis.....lb. .25 - —
Monoethylalphanaphthylamine (see
Monoethylamine, 70% aqueous solution, dms., c.l., dlvd. E. 100% basis lb. .38½- —
dms., l.c.l., dlvd. E., 100% basis. lb. .40 - —
tanks, dlvd. E., 100% basis lb. .35 - —
Monoethylaniline (see N-Ethylaniline).
Monoethylorthotoluidine (see N-Ethyl-o-toluidine).
Monoisopropanolamine, dms., c.l., dlvd. E..lb. .27½- —
dms., l.c.l., same basis.....lb. .29 - —
tanks, same basis.....lb. .25 - —
Monoisopropylamine, anhyd., dms., c.l., dlvd..lb. .33½- —
dms., l.c.l., same basis.....lb. .35 - —
tanks, same basis .....lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis.....lb. .26 - —
30-35% soln., dms., c.l., frt. equald., 100% basis lb. .36 - —
Monomethylamine, 30-35% soln., dms., l.c.l., frt. equald, 100% basis lb. .36¼- —
tanks, frt. equald., 100% basis. lb. .26 - —
40% soln., dms., frt. equald., 100% basis lb. .33 - —
dms., l.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis.lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd. E..lb. .31 - —
bgs., l.c.l., dlvd. E .....lb. .32 - —
Monopotassium glutamate, dms., 1,000-lb. lots, frt. alld..lb. 3.05 - —
dms., 100-lb. lots, same basis..lb. 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic).
Montan wax, Calif., refd., bgs..lb. .27 - .28
Imp., crude, Bohemian, bgs....lb. .21 - .22
German, bgs. .....lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works. oz.12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E..lb. .55¼- —
dms., l.c.l., dlvd. E.....lb. .56¼- —
tanks, dlvd. E.....lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots..lb. 4.40 - 4.80
cns., 25-lb. lots..lb. 4.50 - 5.00
Ketone, fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots .....lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots..lb. 1.26 - —
cns., 25-lb. lots.....lb. 1.40 - —



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Mustard seed, Danish, yellow, bgs.	lb.	.11½-	—
Montana, yellow, bgs	lb.	.10½-	—
Oriental, bgs	lb.	.08 -	—
Mustard, oil, syn., bots	lb.	1.60 -	1.85
Myristic acid, bgs.	lb.	.28¼-	.30¾
tanks	lb.	.27¼-	—
Myrrh gum, cs	lb.	.65 -	.75

N

Naphtha, high solvency (see Solvent naphtha, petroleum).

Naphtha, petroleum, cleaner's (see Cleaner's naphtha).

Naphtha, VM&P, petroleum, tank-cars, New Jersey and New York	gal.	.19 -	—
Group 3	gal.	.13875-	—
Houston, Texas	gal.	.155 -	—
Naphthalene, crude, dom., 73°, tanks, frt. equald	lb.	.06 -	—
imp., 78°, bgs., large lots	lb.	.09½	Nom.
Refd., indust., chipped, crushed, bgs., frt. equald	lb.	.13½-	—
tanks, same basis	lb.	.10¾-	—
Naphthalene, refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis.	lb.	.15½-	—
cs., 50 lbs., c.l., same basis.	lb.	.15¾-	—
1-lb. pkgs., c.l., same basis.	lb.	.18½-	—
a-Naphthol, dms., frt. alld	lb.	1.02 -	—
b-Naphthol, tech., flake, bbls., c.l., works	lb.	.34 -	—
bbls., l.c.l., works	lb.	.36 -	—
Naphthol, ITR, red toner, bbls., works	lb.	5.00 -	—

1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).

1-Naphthol-4 sulfonic acid (see Nevile and Winther's acid).

1-Naphthol-5-sulfonic acid (see L acid).

1-Naphthol-5-sulfonic 8-amino acid (see S acid).

2-Naphthol-6,8-disulfonic acid (see Gamma acid).

Naphthol sulfonic mixed acid (see Cleve's acid).

a-Naphthylamine, dms., frt. alld	lb.	.52 -	—
b-Naphthylamine, tech., flake, bbls., works	lb.	1.60 -	—

1-Naphthylamine-5-sulfonic acid (see Laurent's acid).

2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).

2-Naphthylamine-1-sulfonic acid (see Tobias acid).

2-Naphthylamine-6-sulfonic acid (see Broenner's acid).

2-Naphthylamine-7-sulfonic acid (see F acid).

Naringin, fib. dms.	lb.	8.50 -	—
Neatsfoot oil, 15° cold test, dms.	lb.	.29	Nom.
20° cold test, dms.	lb.	.28	Nom.
30° cold test, dms.	lb.	.27	Nom.
Neocinchophen, USP, dms., frt. adjusted	lb.	7.00 -	8.00
Neomycin sulfate, fib. dms., 1-kilo basis activity	gram.	.25 -	—
fib. dms., 100-999-gram lots, basis activity	gram.	.30 -	—
Tech., fib. dms.	gram.	.13½-	—
Neopentylglycol, dms., c.l., divd	lb.	.32 -	—
dms., l.c.l., same basis	lb.	.33 -	—
Nerol, dms.	lb.	4.75 -	—
Neroli oil, NF, French, bots	lb.	425.00 -	575.00
Tunisian, bots.	lb.	400.00 -	—
Nerolin, cns.	lb.	2.45 -	2.85
Neville and Winther's acid, dms., frt. alld	lb.	1.40 -	—

Niacinamide (see Nicotinamide).

Nickel acetate, bbls., divd.	lb.	.68½-	.75½
Nickel carbonate, bbls., divd	lb.	78¼-	.85¼
Nickel chloride, bbls., divd.	lb.	.37 -	.45
Nickel formate, bbls., ton lots, frt. alld	lb.	.72 -	.73
Nickel metal, electro cathodes, cs., works	lb	.74 -	—
Nickel nitrate, dms., frt. alld	lb.	.31½-	.33½
Nickel oxide, black, bbls.	lb.	.85 -	—
Green, bbls.	lb.	.84 -	—
Nickel sulfate, bgs., c.l., divd	lb.	.28 -	—
bgs., l.c.l., divd.	lb.	.28½-	.36
Nicotinamide, USP, 50-kilo., dms., 100 kilos., divd	kilo.	6.50 -	—
dms., less than 100 kilos, divd.	kilo.	6.60 -	7.00
Nicotine sulfate, 40%, dealers, 50-lb. dms. frt. alld	lb.	1.20 -	—
40%, manufacturers, 500-lb. dms., frt. alld.	lb.	1.05 -	—

Nicotinic amide, USP (see Nicotinamide).

Niger seed, bgs.	lb.	.10¼-	—
Nikethamide, cbys.	lb.	5.00 -	—
Nitric acid, 36° Be., cbys., c.l., works E. 100 lbs.		5.75 -	—
cbys., l.c.l., works E. 100 lbs.		6.05 -	6.85
38° Be., cbys., c.l., works E. 100 lbs.		6.25 -	—
cbys., l.c.l., works E. 100 lbs.		6.55 -	7.35
40° Be., cbys., c.l., works E. 100 lbs.		6.75 -	—
cbys., l.c.l., works E. 100 lbs.		7.05 -	7.85
42° Be., cbys., c.l., works E. 100 lbs.		7.25 -	—
cbys., l.c.l., works E. 100 lbs.		7.55 -	8.35
58.5 to 68% HNO_3, tanks, works, 100% basis 100 lbs.		3.90 -	—
94½ to 95½% HNO_3, tanks, works, 100% basis 100 lbs.		4.90 -	—
CP, NF, consumer, cbys., extra, c.l., works	lb.	.18½-	—
cbys., extra, l.c.l., works.	lb.	.20 -	—
5-pint bots., extra, cs., c.l., same basis	lb.	.22½-	—
5-pint bots., extra, cs., l.c.l., same basis	lb.	.24 -	.25
dms., frt. alld.	lb.	.99 -	—
m-Nitroaniline, cryst., dms., frt. alld.	lb.	1.15 -	—
Paste, dms., frt. alld., 100% basis.	lb.	1.10 -	—
o-Nitroaniline, flaked, dms., t.l., frt. alld	lb.	.49 -	—
dms., l.t.l., frt. alld.	lb.	.51 -	—
o-Nitroaniline orange toner, kgs.	lb.	1.35 -	—
p-Nitroaniline, c.l., t.l., dms., frt. alld	lb.	.445 -	—
dms., l.c.l., same basis	lb.	.46½-	—
o-Nitroanisole, tech., tanks, frt. alld.	lb.	.36 -	—
p-Nitroanisole, tech., solid, dms., frt. alld	lb.	.72 -	—
Nitrobenzene, dbl. dist., dms., c.l., frt. alld	lb.	.13 -	—
dms., l.c.l., frt. alld.	lb.	.14 -	—
tanks, frt. alld.	lb.	.11 -	—
p-Nitrobenzoic acid, dms., c.l., works	lb.	.63 -	—
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works	lb.	.64 -	—
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works	lb.	.37¼-	—
bbls., l.c.l., same basis	lb.	.33½-	.40½
18-20, cps., bbls., c.l., same basis	lb.	.29½-	—
bbls., l.c.l., same basis	lb.	.40½-	.42½
250-400, 600-1,000 seconds, bbls., l.c.l., same basis	lb.	.43 -	.46
Nitrocellulose, spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis	lb.	.43 -	—
bbls., l.c.l., same basis	lb.	.44 -	.46
5-6 cps., 40-60 seconds, bbls., c.l., same basis	lb.	.42 -	—
bbls., l.c.l., same basis	lb.	.43 -	.45

Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable.

o-Nitrochlorobenzene, dms., c.l., frt. alld.	lb.	.15 -	—
dms., l.c.l., same basis	lb.	.16 -	—
tanks, same basis	lb.	.13 -	—
p-Nitrochlorobenzene, dms.	lb.	.26 -	.27
2-Nitro-p-cresol, tech., dms., divd	lb.	.88 -	—
Nitroethane, dms., c.l., divd. E	lb.	.25 -	—
dms., l.c.l., divd. E	lb.	.26½-	—
tanks, divd E.	lb.	.22½-	—

Nitroethane prices West of Rockies are 1c. higher.

Nitrogen solutions, tanks, frt. equald, N	unit.	1.26 -	—
Nitrogen tetroxide, indust., tankcars, f.o.b. Hopewell, Va	lb.	.065 -	—
Cyls., t.l., min. 5 tons, same basis	lb.	.07½-	—
Cyls., l.c.l., l.t.l., same basis	lb.	.15 -	—
Nitrogenous process tankage, bulk, works unit-ton.		4.50 -	5.00
Nitrogenous sewage sludge, bulk, f.o.b. Chicago, works. unit-ton.		2.95 -	—
Nitromethane, dms., t.l., divd. E	lb.	.25 -	—
dms., l.t.l., divd. E	lb.	.26½-	—

Nitromethane prices West of Rockies are 1c higher.

a-Nitronaphthalene, bbls., frt. alld.	lb.	.31 -	—
o-Nitrophenol, dms., works, frt. equald	lb.	.94 -	—
p-Nitrophenol, dms., c.l., frt. alld.	lb.	.45 -	—
dms., l.c.l., frt. alld	lb.	.47 -	—
1-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.23½-	—
dms., l.c.l., same basis	lb.	.25 -	—
tanks, same basis	lb.	.21 -	—
2-Nitropropane, dms., c.l., frt. alld. E. of Rockies	lb.	.18½-	—
dms., l.c.l., same basis	lb.	.20 -	—
tanks, same basis	lb.	.16 -	—

Nitropropane prices West of Rockies are 1c. per lb. higher.

m-Nitrotoluene, tech., dms., frt. alld.	lb.	.50 -	—
o-Nitrotoluene, dms., c.l., frt. alld	lb	.13 -	—
dms., l.c.l., frt alld.	lb.	16 -	—
tanks, frt. alld.	lb.	.13 -	—
p-Nitrotoluene, tech., cast, dms., c.l., works	lb.	.27½-	—
dms., l.c.l., works	lb.	.28 -	—
flake, dms., c.l., t.l., works	lb.	.27½-	—
dms., l.c.l., works	lb.	.28 -	—
m-Nitro-p-toluidine, dms.	lb.	1.25 -	—
Nonylphenol, dms., c.l. frt. alld.	lb.	.22 -	—
dms., l.c.l., frt. alld	lb.	.23 -	—
tanks, frt. alld.	lb.	.19¼-	—

Nonylphenol prices on shipments to Western States are 2c. higher.

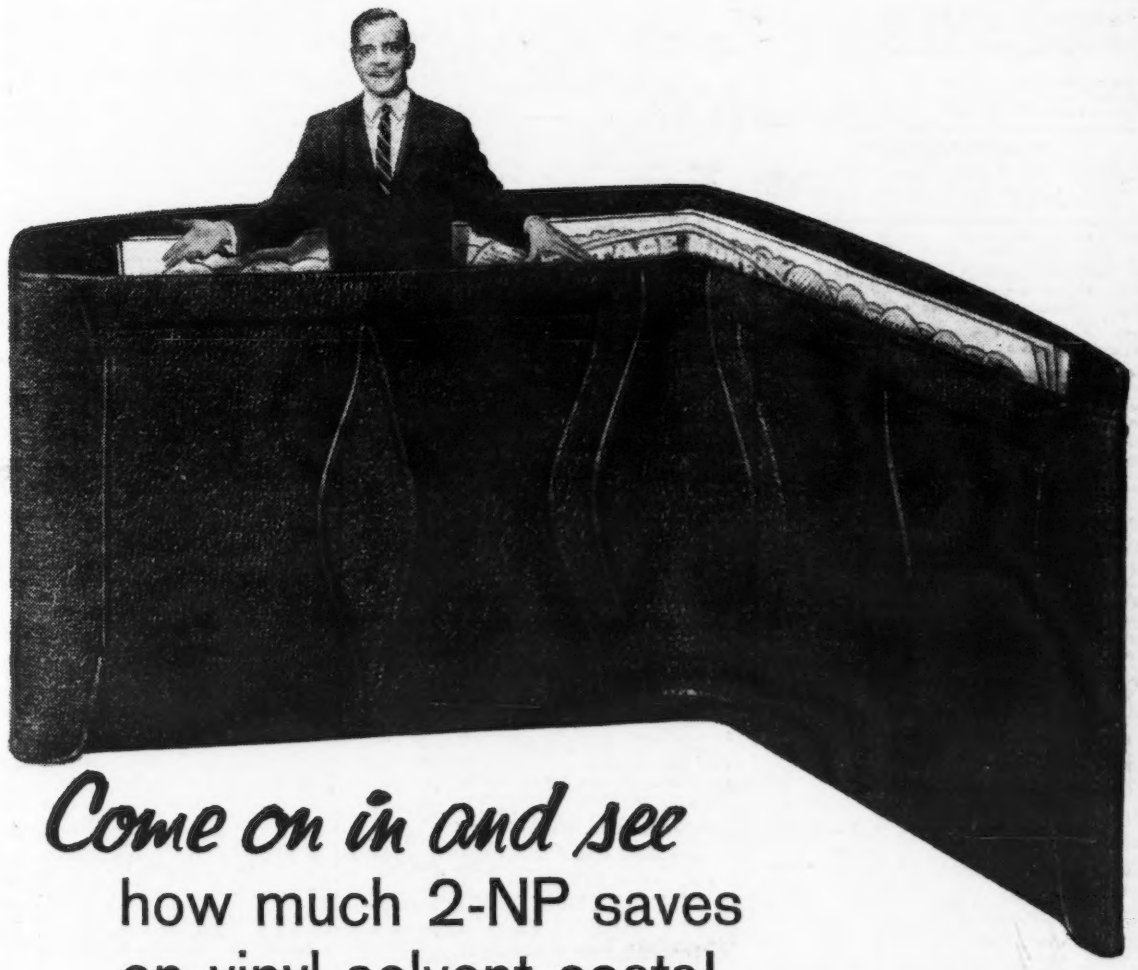
Nutmegs, East Indian, whole, bgs.	lb.	1.36 -	—
West Indian, bgs.	lb.	1.30 -	—
Nutmeg oil, USP, dist., East Indian, cns.	lb.	9.00	-12.00
West Indian, cns.	lb.	9.00	-12.00
Nux vomica, bls.	lb.	.20 -	—
Powd., bbls., bxs.	lb.	.20 -	.22

O

Ocher (see Iron oxide yellow, nat.).			
Ocotea cymbarum oil, dms	lb.	.48 -	.55
Octane, indust., tanks, Bayonne, N.J.	gal.	.20 -	—
Borger, Tex.	gal.	.15¾-	—
1-Octanol, tech., dms., c.l., divd., Zone 1	lb.	.43½-	—
dms., l.c.l., divd. Zone 1	lb.	.45½-	—
tanks, divd., Zone 1	lb.	.41 -	—
Octyl alcohol, perfumers grade, bots.	lb.	1.60 -	3.25

Octyl alcohol, tech. (see 1-Octanol, tech).

tert-Octylamine, dms., c.l., t.l., f.o.b. works	lb.	.54¼-	—
dms., l.c.l., same basis	lb.	.55 -	—



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Octyl phenol, bgs., c.l., works..lb. .22 - —
bgs., l.c.l., works..lb. .22½- —
tanks, works..lb. .21 - —
Octyl phenol in dms., 1lc. higher.

OILS
Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.

Oiticica oil, liq., dms..lb. .16 - .16½
tanks..lb. .14 - —
Oleic acid, dbl.-dist. (white), dms. lb. .17½- .20
tanks..lb. .15 - —
S.d., dms..lb. .16¼- .18¾
tanks..lb. .13¾- —
Oleo oil, extra, dms..lb. .14¾- —
Oleostearine, dms..lb. .12½- .12¾
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs..lb. .15 - .20
Tears, cs..lb. .22 - .30
Olibanum oil, bots..lb. 5.00 - 7.65
Extra fine, bots..lb. 8.00 - 9.50
Olive oil, edible, dms., spot, duty-paid..gal. 2.30 - 2.40
Olivine, crude, works..ton.12.00 - —
20 mesh, works..ton.15.00 - —
100 mesh works..ton.20.00 - —
Opium, USP, cns., 25-lbs., f.o.b. works..oz.19.20 - —
gran., cns., 50 lbs., same basis. oz.21.65 - —
powd., cns., 50 lbs., same basis. oz.21.65 - —
Orange oil, sweet distilled, Calif., cns., dms..lb. .60 - —
Florida, cns., dms..lb. .35 - —
Expressed, Calif., cns., dms..lb. .70 - .90
Florida, cns., dms..lb. .45 - .50
Messina, cns..lb. 3.25 - 5.00
West Indian, bitter, cns., dms. lb. 2.50 - 3.25
Orange peel, bitter, Haitian, bls..lb. .18 - .20
Sweet..lb. .28 - .30
Origanum oil, Spanish, cns..lb. 1.80 - 2.30

ORANGE PIGMENTS
Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.

Orris root, Florentine, bls..lb. .55 - —
powd., bbls., bxs..lb. .65 - —
Verona, bls..lb. .35 - —
powd., bbls., bxs..lb. .45 - —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloraniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol).
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine).
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base).
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots..gram 3.00 - 4.00
Ouricury wax, crude, bgs..lb. .55 - .56
Refd., pure, bgs..lb. .61 - .62
Oxalic acid, bgs., dms., c.l., works. lb. .18 - .18½
bgs., dms., 10,000-lb. lots, works. lb. .18¼- .18¾
bgs., dms., smaller lots, works. lb. .19¼- .19¾
b-Oxynaphthoic acid, pigment manufacture, dms., frt. alld..lb. .912 - —
Dyestuff manufacture, dms., same basis lb. 1.03 - 1.14
Oxyquinolin sulfate, cns., 100-lb. lots, works..lb. 4.75 - 5.00
cns., smaller lots, works..lb. 4.92 - 5.17

P

Palm oil, clarif., dms..lb. .1390- .1490
tanks..lb. .11½- —
Palm oil acid, dist., dms..lb. .15¾- .19¼
tanks..lb. .13¾- .14¼
Palmarosa oil, cns..lb. 4.45 - 6.00
Papain, powd., bots..lb. 5.50 -10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots..oz. 5.00 - —
cns., smaller lots..oz. 5.05 - 5.20
Papaverine sulfate, nat. or syn., USP, cns..oz. 7.10 - 7.35
Paprika, Bulgarian, bgs..lb. .25 - —
Hungarian, bgs..lb. .29 - —
Spanish, bgs..lb. .34 - —
Yugoslavian, bgs..lb. .29 - —
Para-aminobenzoic acid (see p-Aminobenzoic acid).
Parachlorobenzoic acid (see p-Chlorobenzoic acid).
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine).
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Parachlorophenol (see p-Chlorophenol).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls..lb. 1.21 - —
Chlorinated, kgs..lb. 1.36 - —
Paraffin, crude, scale, white, 123°-127°F., ASTM, tanks, refy. lb. .0655- —
Paraffin, fully refd., 122°-124°F., ASTM, tanks, refy..lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0765- —
130°-132°F., ASTM, tanks, refy. lb. .0765- —
132°-134°F., ASTM, tanks, refy. lb. .0765- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F. higher than ASTM.

Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy..gal. .14 - —
Paraffin wax (see Paraffin).
Paraformaldehyde, 91%, flake, bgs., c.l., frt. alld..lb. .10 - —
bgs., l.c.l., frt. alld..lb. .12 - .13
91%, powd., bgs., c.l., ex whse.lb. .1715- —
bgs., l.c.l., ex whse..lb. .1865- —
USP-X, fib. dms., c.l..lb. .19 - —
fib. dms., 1,000-lb. lots..lb. .20 - —
fib. dms., smaller lots..lb. .21½- —
Paraldehyde, tech., 98%, 55-gal. dms., t.l., dlvd..lb. .14 - —
55-gal. dms., l.c.l., dlvd..lb. .15 - —
tanks, dlvd..lb. .11½- —
Paranitroaniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene).
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol).
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol).
Parathion, ethyl, dms., frt. alld..lb. .84 - —
Parathion prices 2c. per lb. higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide).
Paris green, dealers, 100 lb. dms., frt. alld..lb. .45 - —
Passion flower herb, bls..lb. .45 - .50
Patchouli oil, imp., cns..lb. 5.50 - 6.50
Peach kernel oil, USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd. E. of Rockies..lb. 1.00 - —
Peacock blue price 1c. higher W. of Rockies.
Peanut meal, old process, 45%, bgs., f.o.b. mills..ton.57.00 - —
solvent, same basis..ton.52.00 - —
Peanut oil, crude, tanks, f.o.b. mills. lb. .16¼- —
Refd., dms..lb. .21½- .21¾
tanks..lb. .19½- —
Pectin, dom., NF, citrus, powd., bbls. lb. 2.05 - 2.06
Dom., tech., powd., 150 jelly grade, bbls..lb. 1.28 - —
Imp., Danish, bbls., ex whse..lb. 1.28 - —
Pelargonic acid, dms., c.l., dlvd..lb. .25 - —
ton lots, same basis..lb. .27½- —
tanks, same basis..lb. .23½- —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .021 - —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .023 - —
Pennyroyal oil, USP, imported, cns. lb. 1.95 - 2.25
Pentachlorophenol, bgs., c.l., t.l., works, frt. equald..lb. .21 - —
bgs., l.c.l., same basis..lb. .22½- .29
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd..lb. .31 - —
bgs., l.c.l., dlvd..lb. .32 - —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust., tanks, Tex. refy. gal. .14 - —
Pentobarbital, dms., 100 lbs. or more..lb. 6.00 - —
Pepper, black, Malabar, bgs..lb. .62 - —
Lampong, bgs..lb. .62 - —
Red, Funtuas, bgs..lb. .32 - —
Japanese, Hontoka, bgs..lb. .37½- —
Santaka, bgs..lb. .31½- —
Sudanese, bgs..lb. .36 - —
White, Muntok, bgs..lb. .82 - —
Peppermint leaves, dom., USP, bls., dms..lb. .70 - .75
Imp., USP, bls..lb. .85 - —
Peppermint oil, nat., dms..lb. 4.00 - 4.60
Redist., USP, dms..lb. 4.25 - 5.25
Perchloroethylene, dms., c.l., or t.l., dlvd..lb. .13½- —
dms., l.c.l., dlvd..lb. .15¼- —
tanks, dlvd..lb. .11¾- —
tanktruck, 1,000 gal. min. dlvd..lb. .12¼- —
Peri acid, dry, bbls., frt. alld..lb. 1.60 - —
Paste, bbls., frt. alld..lb. 1.55 - —
Peru balsam, dms..lb. 1.10 - 1.50
Persic oil, USP (see Apricot kernel oil).
Petitgrain oil, South American, cns., dms..lb. 2.50 - 3.25
Petrolatum, cream, dms., c.l., refy. lb. .08125- —
dms., l.c.l., dlvd..lb. .10125-.11375
tanks, refy..lb. .05875- —
Extra amber, dms., c.l., refy..lb. .07125- —
dms., l.c.l., dlvd..lb. .09125-.10375
tanks, refy..lb. .04875- —
Petrolatum, lily white, dms., c.l., refy..lb. .08625- —
dms., l.c.l., dlvd..lb. .10625-.12
tanks, refy..lb. .06735- —
USP, snow white, dms., c.l., refy. lb. .09125- —
dms., l.c.l., dlvd..lb. .11125-.125
tanks, refy..lb. .06875- —
Petrolatum, USP, soft yellow, dms., c.l., refy..lb. .07125- —
dms., l.c.l., dlvd..lb. .095 - .10375
tanks, refy..lb. .04875- —
Petroleum pitch (see Asphalt, petroleum).

PETROLEUM PRODUCTS
Petroleum product quotations are listed individually. For example, prices on Petroleum, mineral spirits, may be found in the M's under Mineral spirits, petroleum.

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret. dms., c.l., works. lb. .16½- .18¾
non-ret. dms., l.c.l., works lb. .17½- .19
tanks, works..lb. .14½- .17
50-55%, sulfuric content, non-ret. dms., c.l., works..lb. .16 - —
non-ret. dms., l.c.l., works..lb. .17 - —
tanks, works..lb. .13 - —
o-Phenetidine, dms., c.l., frt. alld. E..lb .91 - —
dms., l.c.l., same basis..lb. .93 - —
p-Phenetidine, dms., c.l., frt. alld. lb. 1.05 - —
dms., same basis..lb. 1.08 - —
Phenobarbitol, USP, dms., 100-lbs., frt. alld..lb. 3.25 - —
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alld. E. of Rockies..lb. .16¾- —
non-ret. dms., l.c.l., same basis. lb. .17¾- —
tanks, same basis..lb. .14¾- —
82-84% (cresol 16-18%) non-ret. dms., c.l., same basis..lb. .16½- —
non-ret dms., l.c.l., same basis. lb. .17½- —
tanks, same basis..lb. .14½- —
30°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .18 - —
Phenol, 30°C., or above, tar dist., non-ret. dms., l.c.l., same basis. lb .19 - —
tanks, same basis..lb. .16 - —
USP, syn., dms., c.l., t.l., frt. alld..lb. .18½- —
dms., same basis..lo. .20½- —
tanks, same basis..lb. .16½- —
Phenolphthalein, USP or yellow, 250-lb. dm., 2,000 lbs., frt. alld..lb. 1.30 - —
250-lb. dm., same basis..lb. 1.35 - —
Phenothiazine drench, fib. dms., t.l., dlvd..lb. .44 - —
fib. dms., l.t.l., same basis..lb .47 - —
NF, fib. dms., t.l., same basis..lb. .43 - —
fib. dms., l.t.l, same basis..lb. .46 - —
Phenyl acetate, dms., 100-lb. lots, works..lb. .50 - —
Phenyl salicylate (see Salol).
Phenylacetaldehyde, soln., 50%, bots. lb. 2.35 - —
100%, bots..lb. 4.00 - 4.65
Phenylacetic acid, pure, cryst., cns. lb. 1.25 - 1.75
dl-Phenylalanine, dms., works..lb.27.00 -37.50
l-Phenyl-3-carbethoxy pyrazolone-5, fib. dms., 200-lb. lots, dlvd. E..lb. 3.45 - —
fib dms., smaller lots, dlvd. E..lb. 3.80 - —
N-Phenyldiethanolamine, dms., c.l., dlvd. E..lb. .41 - —
dms., l.c.l., dlvd. E..lb. .42½- —
tanks, dlvd. E..lb. .38½- —
m-Phenylenediamine, dms., frt. alld. lb. 1.10 - —
o-Phenylenediamine, coml, fib. dms, 100 to 1,000 lbs., works. lb. 1.70 - 1.80
p-Phenylenediamine, tech., dms, works..lb. 1.55 - —
Phenylethanolamine, dms., c.l., works..lb. .75½- —
dms., l.c.l., same basis..lb. .77 - —
Phenylethyl acetate, bots..lb. 1.25 - 1.40
2-Phenylethyl alcohol, extra, dms.lb. 1.14 - 1.50
Standard, dms..lb. 1.10 - 1.60
b-Phenylethylamine, dms., 20,000 lbs. or more, frt. alld..lb. 1.50 - —
dms., smaller lots, frt. alld..lb. 1.70 - 1.85
Phenylethylphenyl acetate, bots..lb. 4.00 - 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine, 97%, 450-lb. dms.lb. 1.45 - —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb. lots, dlvd. E. 1.80 - —
fib. dms., smaller lots, dlvd. E..lb. 2.10 - —
o-Phenylphenol, dms., l.c.l., works. lb. .48 - .50
p-Phenylphenol, bgs., c.l., works..lb. .38½- —
bgs., l.c.l., works..lb. .43 - —
Philippine copal gum, pale, chips, bgs..lb. .23¾- .26
nubs, bgs..lb. .33¼- .37
seeds, bgs..lb. .20 Nom.
sorts, bgs..lb. .20 - .24
Phloroglucinol, coml., fib. dms., works..lb. 6.40 - —
CP, bots., works..lb.17.75 - —
Tech., fib dms., works..lb.10.45 - —
Phloxin red toner (see Eosin red toner).
Phosgene, ref. cyls., works..lb. .15½- —
Phosphate, defluorinated (see under D).
Phosphate rock, Curacao, Atlantic ports, New Orleans..ton.48.00 - —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines. short-ton. 5.298 - —
68-70%, b.p.l., bulk, c.l., same basis..short-ton. 5.648 - —
70-72%, b.p.l., bulk, c.l., same basis..short-ton. 6.228 - —
74-75%, b.p.l., bulk, c.l., same basis..short-ton. 7.128 - —
76-77%, b.p.l., c.l., bulk, same basis..short ton. 8.018 - —
Above Florida prices are based on fuel oil at $2.37 per bbl. and labor at $1.59.
Phosphoric acid, food grade, 75%, cbys., c.l., works, E., frt. equald..100 lbs. 7.00 - —
cbys., l.c.l., same basis. 100 lbs. 7.25 - 7.75
tanks, t.w., works..100 lbs. 5.60 - —
80%, cbys., c.l., frt. equald..100 lbs. 7.85 - —
cbys., l.c.l., works..100 lbs. 8.10 - 9.35
tanks, t.w., works..100 lbs. 6.00 - —
NF, 85%, cbys., c.l., works.100 lbs. 8.50 - —
cbys., l.c.l., works..100 lbs. 8.75 - 9.00
tanks, t.w., works..100 lbs. 6.65 - —
Phosphorus, amorph., red, dms., t.l., works..lb. .55 - —
dms., smaller lots, works..lb. .56 - .57
White (yellow), solid, dms., c.l., works, frt. equald..lb. .20 - .20½
dms., l.c.l., works, frt. equald..lb. .21½- —
tanks, works, frt. equald. lb. .19 - —
Phosphorus oxychloride, dms., c.l., works..lb. .14 - —
dms., l.c.l., works..lb. .15 - —
tanks, works, frt. equald..lb. .12½- —
Phosphorus pentasulfide, powd., dms., c.l., works..lb. .13½- —
dms., l.c.l., works..lb. .14½- .15½
Solid, dms., c.l., works..lb. .11½- —
dms., l.c.l., works..lb. .12½- .13½
Phosphorus pentoxide, dms., c.l., works..lb. .1375- .1475
dms., l.c.l., works..lb. .1475- .1675
Phosphorus sesquisulfide, dms., cs., c.l., works..lb. .38 - —
dms., l.c.l., works..lb. .39 - .40
Phosphorus trichloride, dms., c.l., works..lb. .14 - —
dms., l.c.l., works..lb. .15 - —
tanks, works..lb. .12½- —
Phthalic anhydride, bgs., c.l., works, frt. equald..lb. .19 - .23
bgs., l.c.l., same basis..lb. .20 - .24
tanks, same basis..lb. .18½- .22½
Phthalimide, 97-98%, dms., frt. alld..lb. .65 - —
Phthalocyanine blue, full strength, bbls., dlvd. E. of Rockies. lb. 2.90 - —
Resinated, bbls., same basis..lb. 2.75 - —
Water dispersable, bbls., same basis..lb. 1.52 - —
Pythalocyanine blue prices 1c. higher W. of Rockies.
Phthalocyanine green toner, bbls., works..lb. 3.35 - —
Resinated, bbls..lb. 3.00 - —
Water dispersable, bbls..lb. 1.71 - —
Phthalocyanine green prices 1c. higher W. of Rockies.
Phthalylsulfacetamide, fib. dms., 1,000-lb. lots or more..lb. 5.00 - —
NF, fib. dms..lb. 5.20 - —
a-Picoline, dms., c.l., works, frt. equald..lb. .41 - .43½
dms., l.c.l., works, frt. equald..lb. .41½- .44
tanks, same basis..lb. .38 - .42
b-Picoline, 98%, dms., t.l., works. lb. 1.05 - —
dms., l.c.l., same basis..lb. 1.15 - —
tanks, same basis..lb. .95 - —
b,g-Picoline, 5°C, dms., c.l., works. lb. .32½- —
dms., l.c.l., works..lb. .33 - —
g-Picoline, dms., f.o.b., works..lb. 1.60 - —
tanks, t.l., same basis..lb. 1.50 - —
Picric acid, NF, bbls..lb. .85 - —
Tech., bbls..lb. .44 - —
Pigment green B, kgs..lb. 1.50 - —
Pilocarpine hydrochloride, USP, bots..oz. 5.25 - —
Pilocarpine nitrate, USP, bots., vials. oz. 5.15 - —
Pimento, Jamaican, bgs..lb. .68 - —
Mexican, bgs..lb. .57 - —
Pimento berry oil, NF, dms..lb. 3.75 - 9.25
Pimento leaf oil, crude, cns..lb. 2.20 - 2.60
Pine oil, dest.-dist., dms., l.c.l. works..lb. .15 - —
dms., l.c.l. ex whse. New York. lb. .173 - —
Steam-dist., dms., ex whse., New York..lb. .185 - —
dms., dlvd..lb. .188 - —
Pineneedle oil, Siberian (see Abies Siberoca oil).
Pinetar, retort, dms., c.l., works..lb. .0611- —
dms., l.c.l., works..lb. .0684- —
dms., c.l., ex whse., New York. lb. .0795- —
tanks, works..lb. .0511- —
Pinetar oil, coml., dms., c.l., works. lb. .0611- —
dms., l.c.l., works..lb. .0684- —
dms., c.l., ex whse., New York. lb. .0795- —
tanks, works..lb. .0511- —
NF, rectified, dms., incl., l.c.l., works, South..lb. .40 - —
dms., l.c.l., ex whse., New York..lb. .41½- —
Pinetar oil, refd., dms., incl., l.c.l., works..lb. .35 - —
dms., incl., l.c.l., ex whse, New York..lb. .36½- —
Pink root, bls..lb. 1.75 - —
Piperazine, anhyd., dms., c.l., frt. alld..lb. 1.80 - —
dms., l.c.l., same basis..lb. 1.85 - —
Piperazine citrate, 36%, dms., 1,000 lbs. or more, frt. alld..lb. 1.15 - —
Piperazine dihydrochloride, 51%, dms., 1,000 lbs. or more, frt. alld..lb. 1.23 - —
Piperazine hexahydrate, 44%, dms., 1,000 lbs or more, frt. alld lb. .86 - —
dms., 200-900 lbs., frt. alld..lb. .89 - —
Piperazine phosphate, 42%, dms., 1,000 lbs. or more, frt. alld lb. 1.06 - —
Piperidine, dist., 98% min., dms., c.l., t.l., frt. equald..lb. 2.55 - —
Piperonyl butoxide, dms., dlvd. E.lb. 4.50 - 5.05

PITCHES
Pitch quotations are listed individually For example, prices on Pitch, soybean, may be found in the S's under Soybean pitch.

Plaster of Paris (see Gypsum).
Platinum metal, works..oz.81.00 -85.00
Pleurisy root, bls..lb. .45 - .50
Podophyllum resin, NF, dms..lb.12.50 - —
Poke root, bls..lb. .19 - .22
Polymyxin, bots., bulk, 50 billion units or more..1,000,000 units. .52 - —
bulk, bots., 25-50 billion units. 1,000,000 units. .54 - —
bulk, bots., 1-25 billion units. 1,000,000 units. .56 - —
Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works..lb. .42 - —
dms., 10,000-20,000-lb. lots, works. lb. .44 - —
dms., smaller lots, works..lb. .47 - .49
Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works..lb. .42 - —
dms., 10,000-20,000-lb. lots, works..lb. .44 - —
dms., smaller lots, works..lb. .47 - .49
Pontianak copal gum, chips, bgs..lb. .25 - —
Nubs, bgs..lb. .37 - .40
Poppy seed, Argentine, bgs..lb. No stocks.
Dutch, bgs..lb. .18 - —
Danish, bgs..lb. .17 - —
Polish, bgs..lb. .18 - —
Turkish, bgs..lb. .14 - —
Potash, caustic, liq., 45% basis, dms., c.l., works..100 lbs. 4.25 - —
dms., l.c.l., same basis 100 lbs. 5.05 - —
tanks, same basis..100 lbs. 3.70 - —
reg., flake, 88-92%, dms., c.l., same basis..100 lbs. 9.55 - —
reg., flake, 88-92%, dms., l.c.l., same basis..100 lbs.10.60 - —
solid, 88-92%, dms., c.l., works. 100 lbs. 9.10 - —
dms., l.c.l., works..100 lbs.10.15 - —
Potassium acetate, NF, 200-lb. dm., f.o.b. works, E lb. .31 - —
Potassium bicarbonate, USP, gran. dms..lb. .22 - —
powd., dms..lb. .24 - —
Potassium bichromate, gran., bgs., c.l., t.l., works..lb. .18 - —
bgs., l.c.l., works..lb. .18½- .19¼
Potassium bichromate in dms. ¾c. higher.
Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald..lb. .37 - —
100-lb. bgs., 5,000 lbs., 1 shipt., same basis..lb. .38 - —
100-lb. bgs., smaller lots, same basis lb. .40 - —
Potassium borohydride, powd., dms., works..lb.16.00 -22.00
Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb. lots.
Potassium bromate, dms., 1,000-lb. lots or more, works..lb. .50 - —
dms., smaller lots, works..lb. .52 - .62
Potassium bromide, USP, gran., bbls., kgs..lb. .39 - .40
Potassium carbonate, dom., NF, gran., bbls., dms..lb. .20 - —
Dom., tech., powd., bbls., dms..lb. .21 - .22
Dom., calcinated, bgs., c.l., works. 100 lbs. 8.50 - —
bgs., l.c.l., same basis..100 lbs. 9.55 - —
Dom., hydrated, 83-85%, bgs., c.l., works..100 lbs. 7.10 - —
bgs., l.c.l., works..100 lbs. 8.15 - —
Potassium chlorate, cryst., dms., c.l., works..lb. .12¼- —
dms., l.c.l., works..lb. .13½- .14¼
Powd., dms., c.l., works..lb. .12¾- —
dms., l.c.l., works..lb. .14 - .15
Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works..lb. .16¾- —
NF, gran., 25-lb. metal dms..lb. .36 - —
NF, powd., dms., 2,000 lbs. or more, works..lb. .17¼- —
Potassium chloride, indust., 99.9% KCL, bulk, c.l., works..ton.29.00 - —
bgs., c.l., works..ton.33.50 - —
99.3% KCL, bulk, c.l., works.ton.28.00 - —
bgs., c.l., works..lb.32.50 - —
USP, cryst., dms..lb. .20 - .22
USP, gran., dms..lb. .21 - .23
USP, powd., dms..lb. .24 - .26
Potassium chloride agricultural (see Potassium muriate).
Potassium chromate, tech., dms., works..lb. .50 - .51
Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E..lb. .43 - —
powd., 250-lb dms., same basis. lb. .46 - —
Potassium cyanide, dms., 20,000-lb. lots or more, works..lb. .42½- —
dms., 2,000-19,999-lb. lots, works. lb. .43 - —
dms., smaller lots, works..lb. .44 - .44¼
Potassium dichromate (see Potassium bichromate).

Potassium ferricyanide, dms., ton lots, works..lb. .50 - —
dms., smaller lots, works.....lb. .68 - —
Potassium ferrocyanide, dms., ton lots..lb. .24½- —
dms., smaller lots.....lb. .29 - —
Potassium fluoborate, fib. dms., c.l., works..lb. .30 - —
fib. dms., l.c.l., works.....lb. .31 - —
Potassium fluoride, dms., works..lb. .37 - .38
Potassium gluconate, 100-lb. dm., f.o.b. works E..lb. 1.67 - —
Potassium guaiacol sulfonate, NF, dms..lb. 2.10 - 2.30
Potassium hydroxide, tech. (see Potash caustic).
Potassium hydroxide, USP, pellets, 100-lb. dms., 1 to 100-dm. lots lb. .33½- .38
Potassium hypophosphite, NF, fib. dms., 1,000-lb. lots lb. 1.38 - —
Potassium iodide, USP, cryst., gran., or powd., 250-lb. dm., f.o.b. works lb. 1.40 - —
Potassium manure salt, min. 20% K_2O, bulk, c.l., works, unit-ton. .17 - .1765
Potassium metabisulfite, gran., dms., lb. .16 - —
Powd., dms.....lb. .27 - —
Potassium muriate, standard, bulk, c.l., works..unit-ton. .33 - .35
bagged 60% minimum K_2O, same basis..ton.24.80 -26.00
Gran., bulk, c.l., works unit-ton. .34 - .36
bagged, 60% minimum K_2O, same basis..ton.25.40 -26.40

Inside prices apply to material contracted for prior to July 1, 1959.

Outside prices apply to material contracted for after that date but also for delivery during the current month.

Potassium nitrate, NF, cryst., bbls., 20-ton lots..100 lbs.17.00 - —
bbls., smaller lots....100 lbs.18.00 -19.00
gran., bgs., 20-ton lots..100 lbs. 9.50 - —
bgs., smaller lots....100 lbs.11.00 -12.00
powd., bgs., 20-ton lots..100 lbs.10.50 - —
bgs., smaller lots....100 lbs.12.00 -13.00
Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm., f.o.b. works E lb. .32 - —
Potassium pentaborate, gran., dms., c.l., works..ton.219.50 - —
dms., ton lots, ex whse....ton.311.00 - —
dms., smaller lots, ex whse..ton.316.00 - —
Powdered potassium pentaborate $10 per ton higher.
Potassium perchlorate, dms., c.l., works..lb. .18½- —
dms., l.c.l., works.....lb. .19 - .20
Potassium permanganate, coml., kgs., works..lb. .25 - .33
USP, dms., works.....lb. .29 - .35
Potassium persulfate, dms., c.l., works..lb. .17½- —
dms., l.c.l., works.....lb. .18 - .21
Potassium pyrophosphate, tetrabasic, dms., works..lb. .15½- .18½
Potassium prussiate red (see Potassium ferrocyanide).
Potassium prussiate yellow (see Potassium ferro-cyanide).
Potassium silicate, electrical grade, 30° Be, 1:2.0, dms., c.l., works 100 lbs. 6.50 - —
dms., l.c.l., 5 dm. lots or more, works.....100 lbs. 7.25 - 7.65
tanks, works.....100 lbs. 6.15 - —
Potassium silicate, electrical grade, 40.5° Be, 1:2.1, dms., c.l., works 100 lbs. 5.95 - —
dms., l.c.l., 5 dm. lots or more, works..100 lbs. 6.70 - —
tanks, works 100 lbs. 5.60 - —
Potassium silicate, glass grade, bgs., c.l., works..100 lbs.17.30 -18.00
bgs., l.c.l., works 100 lbs.17.80 - —
Soln., 29° Be, 1:2.5, dms., c.l., works..100 lbs. 4.95 - —
dms., l.c.l., 5-dm. lots or more, works..100 lbs. 5.70 - —
tanks, works.....100 lbs. 4.60 - —
Potassium silicofluoride, bgs., works, lb. .09½- .10

Potassium silicofluoride in drums, 0.4c. per lb. higher.

Potassium stannate, dms., frt. alld. E..lb. .798 - .870
Potassium sulfate, min. 50% K_2O, agricultural, bulk, c.l., works..unit-ton. .62½- .64½

Inside price applies to tonnage contracted for prior to July 1, 1959.

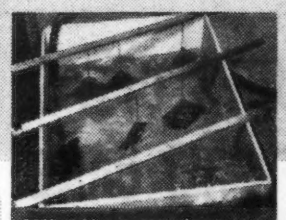
Outside price applies to tonnage contracted for after that date but also for delivery during the current month.

Potassium sulfate, NF VII, cryst., dms., lb. .31 - .33
NF VII, gran., dms.....lb. .18½- —
NF VII, powd., dms.....lb. .16 - .17
Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).
Potassium thiocyanate, NF, cryst., dms., works..lb. .96 - .98
Tech., dms., works.....lb. .77 - .79
Potassium titanate, ctns., c.l., works, lb. .16¼- —
ctns., 5-ton lots, works.....lb. .16½- —
ctns., 1-ton lots or less, works..lb. .16¾- —
Potassium-magnesium sulfate, basis 40% K_2SO_4 and 18% MgO, bulk, works, base price, ton.13.45 - —
bulk, works, July forward..ton.14.00 - —
Potassium-sodium tartrate, NF, gran. or powd., 250-lb. dms., c.l., works E..lb..42½- —
250-lb. dms., 5,000-lb. lots, same basis..lb. .43 - —
250-lb. dms., same basis..lb. .43½- —
Potassium-titanium fluoride, fib. dms., works..lb. .39 - .40
Potassium-zirconium flouride, fib. dms., c.l., works..lb. .50 - —
fib. dms., l.c.l., works.....lb. .52½- .55
Pregnenolone, bots. .....gram. No prices.
Pregnenolone acetate, bots. ..gram. No prices.
Procaine hydrochloride, USP, antibiotic grade, dms., 2,000-lb. lots, frt. alld lb. 2.25 - —
USP, ampule grade, dms., 1,000-lb. lots, frt. alld..lb. 2.40 - —
dms., 500 lbs.....lb. 2.45 - —
dms., 100 lbs.....lb. 2.50 - —
Progesterone, USP, bots.....gram. No prices.
Pregnenolone acetate, bots....gram. No prices.
Propenyl guaethol, dms. .....lb.24.30 -27.00
b-Propriolactone, dms., c.l., l.c.l., f.o.b. works..lb. .89 - —
dms., l.c.l., l.t.l., same basis....lb. .90 - —
tanks, same basis.....lb. .87 - —
Propionic acid, syn., pure, dms., c.l., works..lb. .23¼- —
dms., l.c.l., works.....lb. .24¾- —
tanks, works .....lb. .20¾- —
n-Propyl acetate, dms., c.l., divd, lb. .14¾- —
dms., l.c.l., divd.....lb. .16¼- —
tanks, divd. .....lb. .12¼- —
n-Propyl alcohol, dms., c.l., divd..lb. .14 - .15
dms., l.c.l., divd.....lb. .15½- .16½
tanks, divd. .....lb. .11½- .12½
n-Propyl gallate, dms., 100 to 2,000-lb. lots, works..lb. 3.90 - 4.40
n-Propyl-p-hydroxbenzoate, USP, dms..lb. 2.30 - 2.40
Propyl thiouracil, bots., 50 kilo lots or more..kilo.53.00 - —
bots., smaller lots.....kilo.55.10 -55.30
n-Propylamine, dms., c.l., divd..lb. 1.24 - —
dms., l.c.l., same basis.....lb. 1.255 - —
n-Propylene dichloride, consumers', dms., c.l., divd. E..lb. .0845- —
dms., l.c.l., same basis.....lb. .0995- —
tanks, same basis.....lb. .07 - —
Propylene dichloride prices in West 1c. higher, same basis.
Propylene glycol, indust., dms., c.l., divd. E..lb. .15 - —
dms., l.c.l., same basis.....lb. .16¾- —
tanks, same basis.....lb. .12½- —
USP, dms., c.l., divd. E.....lb. .17 - —
dms., l.c.l., same basis.....lb. .18¾- —
Propylene glycol methyl ether, dms., c.l., divd..lb. .20 - —
dms., l.c.l., same basis.....lb. .21 - —
tanks, same basis.....lb. .18½- —
Propylene oxide, dms., c.l., divd. E. lb. .17 - —
dms., l.c.l., divd. E.....lb. .18½- —
tanks, divd. E .....lb. .14½- —
Psyllium seed, black, bgs.....lb. .30 - .35
Blonde, bgs. .....lb. .18 - .20
Husks, bgs. .....lb. .42 - .45
Pumice, dom., grd., coarse to fine, 0, ½, 1, 1½, 2, 3, bgs., ton lots..lb. .03½- .04¼
bgs., smaller lots.....lb. .03⅞- —
Imp., Italian, silk-screen, coarse, bgs, ton lots..lb. .06½- —
fine, bgs., ton lots.....lb. .04 - —
sun dried, coarse, bgs..ton.60.00 - —
fine, bgs. .....ton.60.00 -70.00
Pumpkin seed, bgs.....lb. .25 - .26
Pyrethrins, syn. (see Allethrin).
Pyrethrum flowers, fine grd., 0.9% pyrethrins, bgs., ton, works..lb. .50 - —
Powd., 1.3% pyrethrins, bgs., ton, works..lb. .71 - —
Pyrethrum liquid, 20/1 basis (2 grams pyrethrins per 100cc odorless base), dms., works, gal. 9.60 - 9.80
Pyrethrum liquid, 100/1 basis (10 grams pyrethrine per 100cc odorless base), dms., works gal.45.90 -46.90
Pyrethrum oleoresin, dewaxed, 20%, dms., works..lb.11.00 -11.35
purif, 20%, dms., works....lb.11.00 -11.35
Pyridine, denat., dms., c.l., works and frt. equaid gal. 2.55 - —
dms., l.c.l., same basis.....gal. 2.70 - —
Refd., 2°, non-ret. dms., c.l., same basis 1 .69½- —
dms., l.c.l., same basis..... lb. .70 - —
tanks, same basis.....lb. .65 - —
Pyridoxine hydrochloride, USP, 500-gram bots., dms., f.o.b. works kilo.175.00 - —
Pyrites, Canadian, 48-50% S, mines, long-ton. 5.00 - 6.00
Pyrocatechol (see Catechol).
Pyrogallic acid, NF (see Pyrogallol).
Pyrogallic acid, tech., bbls., 100-lbs., f.o.b., works..lb. 3.50 - —
Pyrogallol, NF, 100-lb. dms.....lb. 3.50 - —
Pyroxylin, USP, bots.....lb. 9.50 - —

Q

Quassia chips .....lb. .10 - —
Quicksilver (see Mercury metal).
Quince seed, bgs.....lb. 1.30 - 1.40

Which of these 3 products and services can you use from BECCO?



What's new in Metal Treatments and Etching?

Quite a few things. For example, there's the use of Becco Ammonium Persulfate in etching printed circuits. Seems the material works a lot better — at less cost — and with none of the hazards of the ferric chloride solutions conventionally used.

Then, there's the problem of pickling copper and brass. Lots of pickling agents will do this — only trouble is, you've got to paint or plate or do whatever you're going to do with the metal rather quickly. Or else. Or else it will tarnish or oxidize and you're in the pickle all over again.

Not so with Ammonium Persulfate. Cleans fine. Puts a mild etch on the surface, too, for better paint or plating bonding. More important, perhaps, is the fact that the metal resists retarnishing for up to two weeks. Ideas?

We hope so. What's more, we've got several booklets to help spur you on. They're free—use the coupon below to order.

No. 39 and 51—Surface Treatment of Metals with Peroxygen Compounds.

No. 86 — Improving Properties of Copper and Brass Surfaces.

No. 97 — Paddle Etching of Printed Circuits with Ammonium Persulfate.

No. 99 — Tank Immersion Etching of Printed Circuits with Ammonium Persulfate.

No. 102—Etching of Printed Circuits with Mercury Activated Persulfate.

BECCO CHEMICAL DIVISION, FMC
Station B, Buffalo, New York
Dept. OPDR-E

Gentlemen:
Please send me the following free bulletins:

☐ 39 and 51 ☐ 86
☐ 97 ☐ 102 ☐ 99

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

BECCO fmc

What's a PEROXYGEN?

Fact is, "peroxygen" is a word that Becco uses to indicate that we can tie oxygen onto just about anything.

How come? Well, years of experience in producing Hydrogen Peroxide has produced an affinity between Becco and oxygen — an affinity we have capitalized on to give you compounds that will provide a ready source of oxygen — wherever, however and whenever you need it.

We have a good number of such compounds on the shelves. Quite a few others are in development. Still others are merely in our minds, but we can begin drawing them out if you're interested.

We hope you are interested. But we'll never know—unless you fill in the coupon below and mail it to us. Why not?

BECCO CHEMICAL DIVISION, FMC
Station B, Buffalo, New York
Dept. OPDR-D

Gentlemen:
Send me more information about Becco Peroxygen Chemicals.

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

BECCO fmc

Problems in handling Hydrogen Peroxide

Becco's Four-Fold Engineering Service Program—offered free—includes:

1. Comprehensive survey of your facilities.
2. Specific proposal with recommendation of proved equipment and where it is obtainable.
3. Installation supervision by Becco.
4. Periodic inspection and permanent service.

Can you use this free Becco help, based on more years of experience with bulk handling of H_2O_2 than any other manufacturer? Use the coupon to let us know.

BECCO CHEMICAL DIVISION, FMC
Station B, Buffalo, New York
Dept. OPDR-B

Gentlemen:
Please tell me more about your Four-Fold Engineering Service.

NAME_____
FIRM_____
ADDRESS_____
CITY_____
ZONE____ STATE_____

BECCO fmc

Quinidine sulfate, USP, 1,000-oz. dm oz. .74½- —
Quinine, NF, 1,000-oz. dm oz. .3105- —
Quinine bisulfate, USP, 1,000-oz. dm. oz. .2330- —
Quinine hydrochloride, 1,000-oz. dm. oz. .3030- —
Quinine sulfate, USP, 1,000-oz. dm. oz. .2575- —
Quinoline, dms., c.l., frt. equald. lb. .50¾- —
dms., l.c.l., same basis lb. .51¼- —
tanks, same basis lb. .50 - —

R

R salt paste, dms., frt. alld., 100% basis lb. .98 - —
Powd., frt. alld. 100% basis lb. 1.08 - —
Rapeseed oil, dms lb. .15 - .15½
tanks lb. .13 - —
Rare earth oxalate, NF, 45-50%, bgs., works lb. 1.15 - —
Rauwolfia serpentina root, powd., bbls., dms lb. 1.00 - 1.20
Red carmine, No. 40 (see Carmine).
Red oil (see Oleic acid).

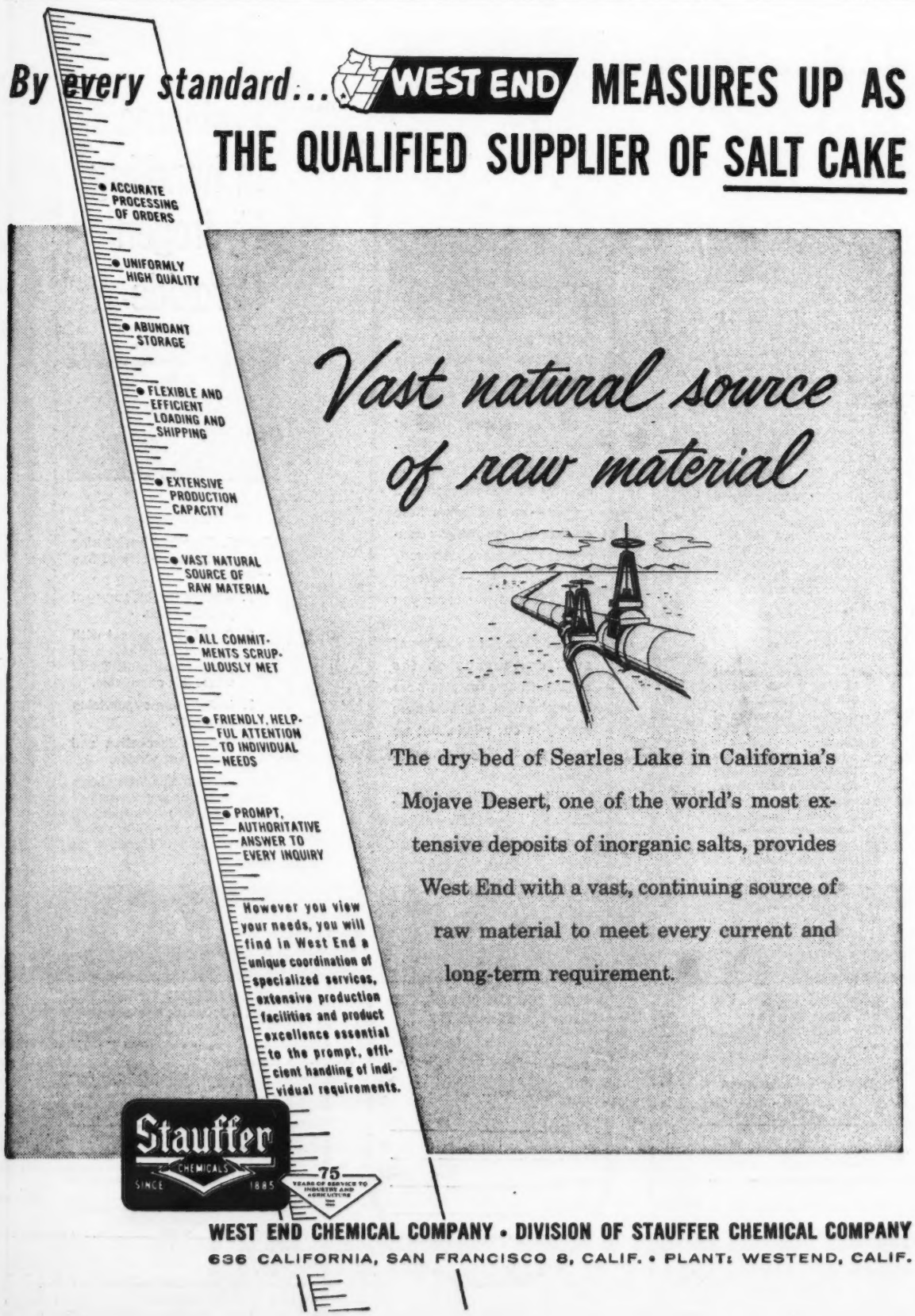
RED PIGMENTS

Red pigment quotations are listed individually. For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner.

Red precipitate (see Mercuric oxide, red).
Red toner, Lake C, alizanine, bbls., works lb. 1.25 - —
Reserpine, cryst., bots. gram. 1.25 - —
Resorcinol, tech grade, dms., c.l., works, frt. equald. lb. .77¼- —
dms., l.c.l., same basis lb. .78½- —
USP, powd., dms., works lb. 2.95 - —
Resorcinol monoacetate, NF, dms. lb. 2.50 - —
Rhatany root, bgs lb. .14 - .16
Rhodamine red toner, molybdated, PMA, kgs., works lb. 6.00 - —
Tungstated, PTMA, works, kgs lb. 6.60 - —
Rhodinol, 5-lb. cans lb.42.00 -51.00
Synthetic lb.14.00 -16.00
Rhubarb root, India, whole, bgs. lb. .25 - —
powd., bgs. lb. .35 - —
tanks, same basis lb. .14½- —
Riboflavin, USP, fib. dms., kilo or more, dlvd kilo.36.00 - —
Riboflavin, USP, readily soluble, lots, dlvd kilo.13.00 - —
Riboflavin, 5-phosphate-sodium, fib. dms., kilo or more, dlvd. kilo.104.50 - —
Rice bran oil, clarified, dms., l.c.l. lb. .14 - .14½
tanks, dlvd. E lb. .12 Nom.
Ricinoleic acid (see Castor oil acids split).
Rochelle salt (see Potassium-sodium tartrate)
Roofing pitch (see Coaltar pitch roofing).
Rose oil, nat., Bulgarian, bots. oz.72.00 - —
Turkish, bots. oz.55.00 -58.00
Rosemary oil, Spanish, NF, cns., dms. lb. .97 - 1.40
Spanish, tech., cns., dms lb. .50 - 1.20
Rosin gum and wood (see Naval Stores in Protective Coatings market).
Rotenone, fib. dms., works, unit-lb. .12 - —
Resin, 25-45%, fib. dms., works, unit-lb. .12 - —
Rottenstone, bgs., 5-ton lots, ex-whse lb. .03¾- —
bgs., ton lots, same basis lb. .04¼- —
Rubber solvent, petroleum, 115°F-245°F b.r., tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Rue oil, bots lb. 2.75 - 3.00
Rutin, NF, fib. dms., 10 kilo lots. kilo.13.00 - —
fib. dms., 5 kilo lots kilo.13.50 - —
fib. dms., 1 kilo kilo.14.00 - —
Ryania, 100%, powd., bgs., c.l., works lb. .22 - —
bgs., l.c.l., same basis lb. .24 - —

S

S acid, bbls., works lb. 3.25 - —
Sabadilla seed, activated, ground with lime, bbls lb. .42 - .44
Saccharin, calcium, fib. dms., 1,000-lb. lots, works lb. 2.50 - —
USP, gran., soluble, dms., 1,000-lb. lots, works lb. 1.40 - —
dms., smaller lots lb. 1.50 - —
USP, powd., soluble, insoluble, dms., 1,000-lb. lots lb. 1.45 - —
dms., smaller lots lb. 1.55 - —
USP, powd., insoluble, dms., 1,000-lb. lots lb. 1.43 - —
dms., smaller lots lb. 1.53 - —
Safflower oil, dms., New York lb. .1755- .18
tanks, Atl. Coast lb. .1555- —
Saffron, Mancha Superior, tins lb.20.50 - —
Safrol, dms. lb. .65 - —
Sage, Dalmatian, bgs. lb. .40 - —
Greek, cns. lb. .15 - —
Italian, cns. lb. .18 - —
Sage oil, clary, bots. lb.15.50 -17.00
Dalmatian, cns. lb. 2.85 - 3.25
Spanish, cns. lb. 1.25 - 1.75
Sal soda (see Soda sal).
Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald lb. 1.23 - —
dms., l.c.l., same basis lb. 1.25 - —
Salicylamide, 100-lb. dms lb. 1.05 - —
Salicylic acid, sublimed, tech., fib. dms., c.l., t.l., dlvd lb. .40½- —
fib. dms., l.c.l., dlvd lb. .44¾- —
Salicylic acid, USP, cryst., 200-lb. 200-lb. fib. dms., 1,000 lbs. or more lb. .51¾- —
200-lb. fib. dms., less than 1,000 lbs lb. .54¾- —
100-lb. fib. dms., 1,000 lbs. or more lb. .53¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .56¾- —
USP, powd., 100-lb. fib. dms., 1,000 lbs. or more lb. .58¾- —
100-lb. fib. dms., less than 1,000 lbs lb. .61¾- —
Salol, NF, gran., bbls., kgs lb. 1.20 - —
Powdered salol, 25c. per lb. higher.
Salt, rock, paper bgs., c.l. 100 lbs. 1.09 - —
Salt, table vacuum, common, fine, paper bgs., c.l. 100 lbs. 1.34 - —
Saltcake, dom., bulk, works, 100% Na_2SO_4 basis ton.28.00 - —
Saltpeter (see Potassium nitrate).
Sandalwood, E. Indian, chips, bgs., lb. .55 - .66
powd., fib. dms lb. .75 - .76
Sandalwood oil, cns lb.20.00 - —
Sarcosine, tech., tanks, f.o.b., works, frt. equald lb. 1.03 - —
lb. No stocks.
Sardine oil, crude, tanks, Pac. coast.
Sassafras oil, artif., dms lb. .43 - —
Nat., dom., dms lb. 1.45 - 2.15
Savory oil, cns lb. 4.75 - —
Schaeffer's salt, paste, dms., frt. alld. 100% basis lb. .85 - —
Powd., bgs., frt. alld., 100% basis. lb. .95 - —
Scopolamine hydrobromide, USP, bots. oz.13.00 - —
Sebacic acid, CP, bgs., c.l., works. lb. .69½- —
bgs., l.c.l., works lb. .71½- —
Purified, bgs., c.l., works lb. .65½- —
bgs., l.c.l., works lb. .67½- —
Seidlitz mixture, fib. dms., 5,000-lb. lots lb. .30½- —
fib. dms., smaller lots lb. .31 - .32
Selenium, powd., 99½%, dms., dlvd. lb. 7.00 - —
Senega root, bls lb. 3.00 - —
Senna leaves, Alexandria, whole and half, bls lb. .20 - .22
siftings lb. .16 - —
Tinnevelly, No. 1, bls lb. .22 - —
No. 2, bls lb. .18 - —
No. 3, bls lb. .14 - —
pods, bls. lb. .28 - —
powd., bbls., bxs lb. .17 - —
Serpentaria root, bls lb. 6.50 - —
Sesame oil, USP, dms lb. .38 - .39
Sesame seed, Colombian, bgs lb. .15½- —
Lebanese, hulled, bgs lb. .19 - —
Nicaraguan, hulled, bgs lb. .24 - —
nat., bgs. lb. .14 - —
Salvadorian, Nat., bgs lb. .16 - —
Shellac, bleached bonedry, bgs., 1,500-lb. lots lb. .46 - —
bbls., 1,500-lb. lots lb. .47 - —
kgs., 1,500-lb. lots lb. .48 - —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.
Shellac, bleached, refd., bgs., 1,500-lb. lots lb. .56 - —
bbls., 1,500-lb. lots lb. .57 - —
kgs., 1,500-lb. lots lb. .58 - —
Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 - .39
lemon No. 2, bgs., 10-bg. lots. lb. .34 - .37
superfine, bgs., 10-bg. lots lb. .32 - .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.
Shingle stain oil, tar distillate, dms., c.l., works gal. .37 - —
dms., l.c.l., works gal. .48 - —
tanks, works gal. .25 - —
Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 - .17
Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 - —
bgs., l.c.l., works, ex whse. ton.45.00 -55.00
Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton.20.00 - —
bgs., l.c.l., works ton.25.00 - —
99½%, 140 mesh, bgs., c.l., works ton.15.00 - —
bgs., l.c.l., works ton.20.00 - —
Silicon tetrachloride, tech., dms., c.l., works lb. .18 - —
tanks, works lb. .17 - —
Silver bullion, ingots, cs. Troy oz. .91⅜- —
Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots oz. .95¼- —
bots., 100-oz. lots oz. .96¼- —
Silver nitrate, CP, cryst., bots., 1,000 to 3,000-oz., f.o.b. works oz. .67¼- —
bots., 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.
Silver proteinate, mild, USP, bots., dms., 1,000-oz. lots oz. 1.15 - —
Strong, NF, bots., dms., 1,000-oz. lots oz. 1.10 - —
Snakeroot oil, Canada, cns lb.40.00 -43.00
Soapbark, crushed, bls lb. .30 - .35
Powd., bls. lb. .35 - .40
Whole, bls. lb. .20 - .25
Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 - 4.77
bulk, c.l., works 100 lbs. 1.60 - —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 - —
paper bgs., l.c.l., stock pts., 100 lbs. 3.95 - 4.72
bulk, c.l., works 100 lbs. 1.55 - —
Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 - —
liq., 50%, sellers' tanks, works, dry basis 100 lbs. 2.90 - —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 - 3.00
Soda, caustic, flake, 73%, sellers' tanks, works, dry basis, 100 lbs. 3.00 - —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 - 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 - —
Soda, sal, conc., bgs., c.l., works. 100 lbs. 2.50 - —
bgs., smaller lots, works 100 lbs. 2.80 - —
Sodium acetate, anhyd., bgs., c.l., dlvd. E lb. .14½- —
NF, 60%, gran., dms., c.l., works. lb. .15½- —
dms., l.c.l., works lb. .17½- —
Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 - —

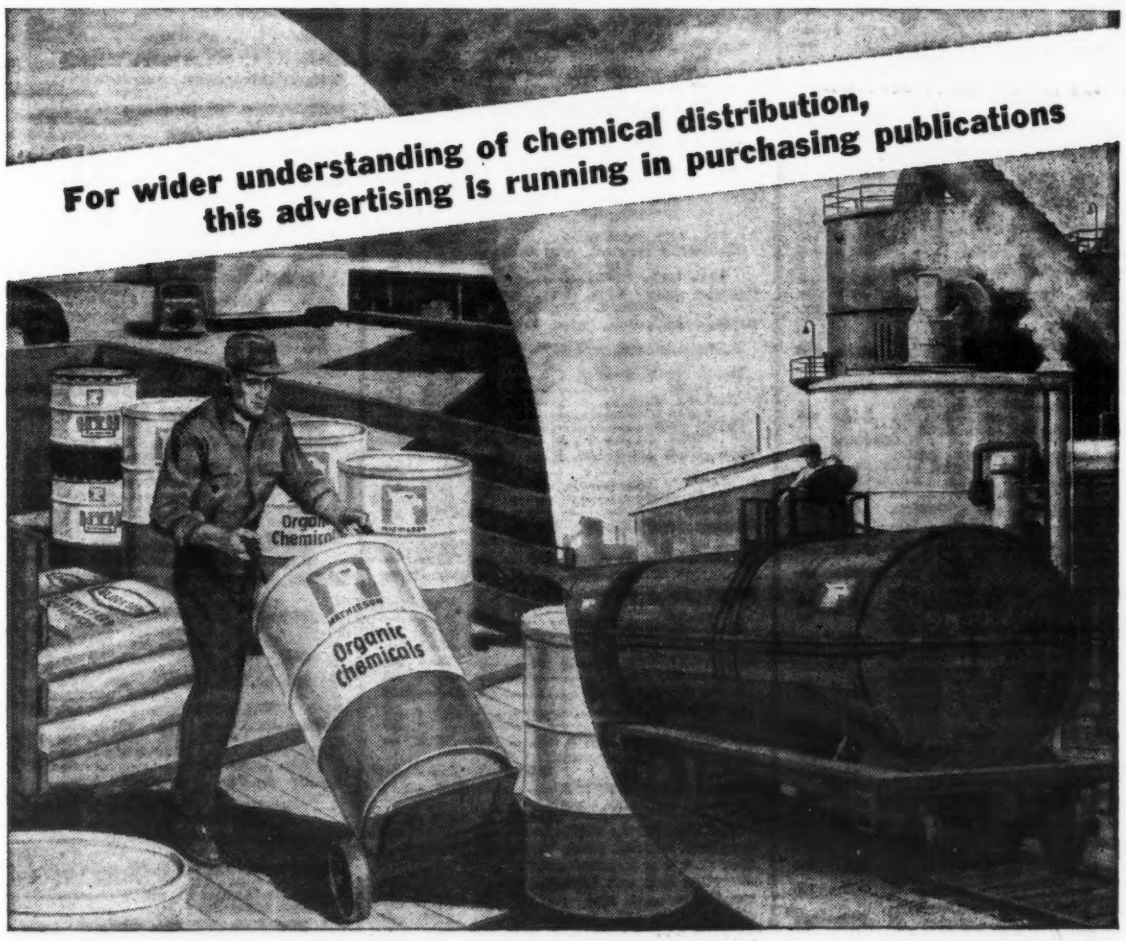

By every standard... WEST END MEASURES UP AS THE QUALIFIED SUPPLIER OF SALT CAKE
ACCURATE PROCESSING OF ORDERS
UNIFORMLY HIGH QUALITY
ABUNDANT STORAGE
FLEXIBLE AND EFFICIENT LOADING AND SHIPPING
EXTENSIVE PRODUCTION CAPACITY
VAST NATURAL SOURCE OF RAW MATERIAL
ALL COMMITMENTS SCRUPULOUSLY MET
FRIENDLY, HELPFUL ATTENTION TO INDIVIDUAL NEEDS
PROMPT, AUTHORITATIVE ANSWER TO EVERY INQUIRY
However you view your needs, you will find in West End a unique coordination of specialized services, extensive production facilities and product excellence essential to the prompt, efficient handling of individual requirements.
Vast natural source of raw material
The dry bed of Searles Lake in California's Mojave Desert, one of the world's most extensive deposits of inorganic salts, provides West End with a vast, continuing source of raw material to meet every current and long-term requirement.
Stauffer CHEMICALS SINCE 1885
75 YEARS OF SERVICE TO INDUSTRY AND AGRICULTURE
WEST END CHEMICAL COMPANY • DIVISION OF STAUFFER CHEMICAL COMPANY
636 CALIFORNIA, SAN FRANCISCO 8, CALIF. • PLANT: WESTEND, CALIF.

Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted..lb. 1.90 - —
Sodium antimonlate, bgs., c.l., dlvd. E..lb. .27½- —
bgs., l.c.l., dlvd. E.....lb. .29 - —
Sodium arsenate, 60% arsenic pentoxide, dms., any quantity,
Sodium arsenite, 90% pink powder, 75% arsenious oxide, leaders, dms., ton lots or more, works..lb. .17½- —
dms., less than ton lots, works lb. .18 - .19
Sodium ascorbate, dms., 25-50 kilo dms., f.o.b. works..kilo.10.00 - —
10-kilo dm., same basis.....kilo.10.35 - —
5-kilo dm., same basis.....kilo.10.75 - —
1-kilo bot., same basis.....kilo.11.00 - —
Sodium benzoate, tech., dms., c.l., t.l., frt. alld..lb. .35 - —
dms., l.c.l., same basis .....lb. .39 - —
USP, dms., c.l., t.l., frt. alld..lb. .38 - —
dms., ton lots, same basis....lb. .43 - —
dms., 1,000-lb. lots, same basis. lb. .45 - —
Sodium bicarbonate, USP, gran., bgs., c.l., works..100 lbs. 2.95 - —
bgs., l.c.l., works.....100 lbs. 3.85 - —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 - —
bgs., l.c.l., works.....100 lbs. 3.45 - —
Sodium bichromate, gran., bgs., c.l., t.l., works..lb. .13 - —
bgs., l.c.l., works.....lb. .13½- .14¼
Sodium bichromate in dms. ½c. per lb. higher.
Sodium bifluoride, bbls., c.l., works, frt. equald..lb. .19½- —
bbls., l.c.l., same basis.....lb. .2025- —
Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 - —
dms., c.l., frt. equald.....100 lbs. 3.00 - 3.60
dms., l.c.l., frt. equald.....100 lbs. 3.50 - 4.10
Sodium bisulfite, anhyd., bgs., c.l., works..100 lbs. 5.00 - —
bgs., l.c.l., works .....100 lbs. 5.45 - —
Soln., 35°, bbls., c.l., works.100 lbs. 1.70 - —
bbls., l.c.l., works.....100 lbs. 2.20 - —
Sodium borate (see Borax).
Sodium borohydride, powd., dms., c.l., works..lb.19.90 - —
dms., l.c.l., works.....lb.33.00 -40.00
Sodium borohydride, stabilized water soln., 12% NaBH, 100% basis, dms., works..lb.15.00 - —
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.
Sodium bromide, USP, gran., dms., works..lb. .40 - —
Sodium carbonate, cryst., monohydrated (see Soda, sal).
Sodium carbonate, monohydrated, bgs., c.l., works..100 lbs. 3.10 - —
bgs., l.c.l., works.....100 lbs. 3.50 - —
Sodium carboxymethyl cellulose (see CMC).
Sodium chlorate, cryst., 350-lb. dms., c.l., works..lb. .09 - —
dms., l.c.l., works.....lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.
Sodium chloride, tech. (see Salt).
Sodium chloride, USP, gran., bgs. lb. .05 - —
Sodium chlorite, tech., dms., c.l., works..lb. .58 - —
dms., 20-dm. lots or more, works. lb. .66 - —
dms., smaller lots, works....lb. .70 - .73
Sodium chloroacetate, tech., dms., c.l., works..lb. .27 - —
dms., l.c.l., works.....lb. .28 - —
Sodium chromate, anhyd., fib. dms., c.l., t.l., works..lb. .14¾- —
fib. dms., l.c.l., works .....lb. .15¼- .16½
Sodium chromate tetrahydrate, bgs., c.l., t.l., works..lb. .1015- —
bgs., l.c.l. .....lb. .1065- .1190
Sodium citrate, anhyd., 200-lb. dm., f.o.b works E lb. .62 - —
NF VIII, gran, bgs., c.l., same basis lb. .26 - —
USP XIV, gran., bgs., c.l., same basis..lb. .29 - —
Sodium citrate, USP, powd. prices ½c. higher.
Sodium cyanate, dms., 1,000-lb. lots, works..lb. .85 - —
dms., smaller lots, works.....lb. .90 - 1.10
Sodium cyanide, briquettes or gran., 97 percent min., dms., works, 20,000-lb. lots..lb. .176 - —
dms., same basis, 5,000 to 19,999-lb. lots..lb. .188 - —
dms., same basis, 1,000 to 4,900-lb. lots..lb. .198 - —
Sodium cyclamate, 100-lb. dm., f.o.b. works..lb. 1.95 - —
Sodium diacetate, anhyd., 39-41% acetic acid, dms., c.l., works..lb. .18 - —
250-lb. dms., l.c.l., works....lb. .16¼- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 - —
250-lb. dms., l.c.l., works.....lb. .15¼- —
Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 - —
dms., l.c.l., t.t.l., same basis..lb. .47 - .52
tanks, same basis .....lb. .38 - —
Sodium ferrocyanide, bgs., 10-ton lots..lb. .13½- —
bgs., smaller lots .....lb. .14¼- —
Sodium fluoride, white, 97%, fib. dms., c.l., works, frt. equald..lb. .1390- —
fib. dms., l.c.l., works, frt. equald..lb. .1463- —
Sodium formate, bgs., c.l., works, 100 lbs. 7.65 - —
bgs., l.c.l., ex whse.....100 lbs. 8.65 - —
Sodium gentisate, 100-lb. fib. dms.lb. 5.50 - —
Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 - —
Tech., bgs., c.l., t.l., same basis.lb. .34 - —
Sodium hydride, 50% soln. in oil, dms., works..lb. 1.25 - 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 - —
dms., 50-99 lbs., same basis..lb. 1.77 - —
dms., 100-999 lbs., same basis lb. 1.20 - —
dms., 1,000 lbs. or more, same basis..lb. .95 - —
Sodium hydrosulfide (see Sodium sulfhydrate).
Sodium hydrosulfite, dms, c.l., frt. alld..lb. .23½- —
dms., l.c.l., frt. alld. .....lb. .25¾- —
Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots. lb .23½- .28
Sodium hydroxide, tech. (see Soda, caustic).
Sodium hypophosphite, NF, dms., 1,000-lb. lots..lb. .99 - —
Sodium hyposulfite (see Sodium thiosulfate).
Sodium iodide, USP, 300-lb. dms., f.o.b. works..lb. 1.98 - —
Sodium lauryl sulfate, dms., c.l., dlvd..lb. .20½- —
dms., l.t.l., dlvd. .....lb. .21½- —
tanks, dlvd. .....lb. .19½- —
Sodium lignin sulfonate, bgs., c.l., works..100 lbs. 4.25 - 6.50
l.c.l., bgs., works.....100 lbs. 4.40 - 7.00
Sodium metabisulfite (see Sodium bisulfite).

Sodium metaborate octahydrate, gran., bgs., c.l., works ton.210.00 - —
bgs., ton lots, ex whse..100 lbs. 8.00 - —
bgs., smaller lots, ex whse. 100 lbs. 9.25 -11.25
Tetrahydrate, bgs., c.l., works. ton.210.00 - —
bgs., ton lots, ex whse..100 lbs.13.93 - —
bgs., smaller lots, ex whse. 100 lbs.15.18 -17.18
Sodium, metallic, bricks, c.l., works. lb. .21 - —
Fused, 18,000-lb. lots or more, works..lb. .19½- —
tanks, works .....lb. .17 - —
Sodium metalinate, bbls., frt. alld. lb. .62 - —
Sodium metaphosphate, bgs., c.l., f.o.b. shipping pt..100 lbs.11.10 - —
bgs., l.c.l., same basis..100 lbs.11.85 - —
dms., c.l., same basis.....100 lbs.11.70 - —
dms., l.c.l., same basis....100 lbs.12.45 - —
Sodium metasilicate, anhyd., bgs., c.l., works..100 lbs. 5.70 - —
bgs., 6,000-19,900 lb. lots, works. 100 lbs. 6.05 - —
dms., c.l., works.....100 lbs. 6.20 - —
dms., l.c.l., works.....100 lbs. 6.55 - —
Sodium metasilicate pentahydrate, bgs., c.l., works..100 lbs. 4.45 - —
bgs., l.c.l., works.....100 lbs. 4.80 - 6.75
dms., l.c.l., works.....100 lbs. 4.95 - —
dms., l.c.l., works.....100 lbs. 5.30 - 7.25
Sodium molybdate, anhyd., dms., works, frt. equald..lb. .92 - .99
Cryst., dms., works, frt. alld..lb. .74 - .76
Sodium monoglutamate (see Monosodium glutamate).
Sodium monohydrate (see Sodium carbonate, monohydrated).
Sodium naphthionate, bbls. .....lb. .72 - —

Sodium nitrate, dom., crude, bgs., c.l., works..ton.48.00 - —
bulk, c.l., works.....ton.44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse..ton.48.00 - —
bulk, c.l., same basis....ton.44.00 - —
Sodium nitrite, USP, bbls., c.l., works, frt. equald..100 lbs. 9.00 - —
bbls., l.c.l., same basis..100 lbs.11.00 - —
Sodium orthosilicate, conc., dms., c.l., works..100 lbs. 6.70 - —
dms., l.c.l., works.....100 lbs. 7.05 - 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works.....100 lbs. 7.60 - 7.90
Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 - —
99%, bgs., works..100 lbs.15.40 - —
Sodium para-aminobenzoate (see Sodium p-aminobenzoate).
Sodium para-aminosalicylate (see Sodium p-aminosalicylate).
Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald..lb. .26 - —
dms., l.c.l., same basis .....lb. .27½- .34
Pellets, dms., c.l., same basis..lb. .26 - —
dms., c.l., same basis .....lb. .27½- .34
Powd., dms., c.l., same basis....lb. .25 - —
dms., l.c.l., same basis.....lb. .26½- .33
Sodium pentabarbital, USP, dms., 100 lbs. or more..lb. 6.00 - —
Sodium perborate, NF, tech., bgs., c.l., works..lb. .18½- —
bgs., l.c.l., works .....lb. .19 - .21

Sodium peroxide, dms., c.l., t.l., dlvd. E. of Miss..lb. .21½- —
dms., l.c.l., same basis.....lb. .22 - .22½
Sodium phenobarbital, USP, 100-lb. dms..lb. 3.75 - —
Sodium phenosulfonate, USP, IX, gran., dms..lb. .52 - .53
NF, powd., dms. .....lb. .55 - .56
Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 7.95 - —
bgs., l.c.l., same basis..100 lbs. 8.35 - 9.40
Dibasic, cryst., bgs., c.l., t.l., frt. equald. 100 lbs. 4.60 - —
bgs., l.c.l., frt. equald..100 lbs. 5.00 - 5.75
Dibasic, duohydrate, bgs., c.l., frt. equald. 100 lbs. 7.60 - —
bgs., l.c.l., same basis..100 lbs. 8.10 - —
USP, dried, powd., bgs., dms., works..lb. .19 - .20½
Monobasic, anhyd., bgs., c.l., frt. equald. 100 lbs. 9.00 - —
bgs., l.c.l., same basis..100 lbs. 9.40 -10.00
Tribasic, anhyd., bgs., c.l., frt. equald..100 lbs. 9.00 - —
bgs., l.c.l., frt. equald..100 lbs. 9.45 -10.05
Sodium phosphate in dms. 60c. to 80c. higher than bgs.
Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald..lb. .90 - —
Sodium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½- —
Prices W. of Rockies 3c. per lb. more.



For wider understanding of chemical distribution, this advertising is running in purchasing publications

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When your operations call for limited, varied or irregular chemical supply, your local distributor of Olin Mathieson chemicals is a good man to know. He can provide you with chemicals you need quickly and economically. He can also help you with technical problems that may arise.

If your operation is such that you can schedule the regular use of large quantities of chemicals, it is to your advantage to take direct shipment from the nearest Olin Mathieson plant. Most often, however, services of producer and distributor complement each other in providing you with a coordinated chemical supply tailored to your requirements.

We will be glad to recommend a specific purchasing pattern to fit your requirements. For a discussion date or the name of your local Olin Mathieson distributor, please write.

Olin Mathieson
Chemicals Division • Baltimore 3, Md.

CHEMICALS

BLOCKSON

Trisodium Phosphate • Trisodium Phosphate Chlorinated • Sodium Tripolyphosphate • Tetrasodium Pyrophosphate • Sodium Hexametaphosphate Monosodium Phosphate • Disodium Phosphate • Sodium Acid Pyrophosphate • Tetrapotassium Pyrophosphate • Sulfuric Acid • Hydrofluoric Acid Sodium Silicofluoride • Sodium Fluoride • Teox® 120 Surfactant

MATHIESON

Ammonia • Bicarbonate of Soda • Carbon Dioxide • Caustic Soda • Chlorine • Formaldehyde • Hydrazine and Derivatives • Hypochlorite Products Methanol • Muriatic Acid • Nitrate of Soda • Nitric Acid • Soda Ash • Sodium Chlorite Products • Sodium Methylate • Sulfur (Processed) Sulfuric Acid • Urea • Ethylene Oxide • Ethylene Glycols • Polyethylene Glycols • Ethanolamines • Glycol Ethers • Surfactants • Ethylene Dichloride

Sodium prussiate, yellow (see Sodium ferrocyanide).

Sodium pyrophosphate acid, bgs., c.l., works, frt. equald. 100 lbs. 11.10 - —
bgs., l.c.l., same basis 100 lbs. 11.85 - 12.35

Sodium pyrophosphate, ferric, dms., c.l., t.l., works lb. .36 - —
dms., l.c.l., works lb. .37 - .39

Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.81 - —
bgs., l.c.l. same basis 100 lbs. 9.21 - 9.71

Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms. lb. .81½- —

Sodium sesquicarbonate, bgs., c.l., works 100 lbs. 2.35 - —
bgs., l.c.l., dlvd. zone 1 100 lbs. 4.10 - 4.35
dlvd. zone 2 100 lbs. 4.35 - 4.60
dlvd. zone 3 100 lbs. 4.75 - 4.90
dlvd. zone 4 100 lbs. 5.35 - 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss. south of 31°; Tex. E. of 100°; S of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No. of 31°; (3) Ark. W. of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W. of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo. and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms., c.l., t.l., works 100 lbs. 6.20 - —

Sodium sesquisilicate, hydrated, bgs., c.l., works 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms., 6,000-19,900 lb. lots, works. 100 lbs. 5.85 - —

Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs. 1.90 - 2.40
tanks, works 100 lbs. 1.20 - —
47° Be., 1:29.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 - —
52° Be, 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 - 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1.3.2, bgs., works ton. 67.50 - —

Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. .725- —
Sodium silicofluoride in dms., 0.4c. per lb. higher.

Sodium stannate, dms., works, frt. alld. E lb. .658 - .717

Sodium sulfa drugs (see Sulfa name).

Sodium sulfanilate, bbls., works lb. .22 - —

Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd., bgs., c.l., dlvd. E. ton. 54.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton. 36.00 - —
bulk, c.l., works ton. 32.00 - —
USP, cryst., fib. dms. lb. .17½- .18

Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq., 40-44%, tanks, works, 100% basis ton. 130.00 - —

Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —

Sodium sulfite, anhyd., powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs., l.c.l., same basis 100 lbs. 7.95 - —
Anhyd., tech., bgs., c.l., works. 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs. 4.00 - —

Sodium sulfocyanide, CP (see Sodium thiocyanate).

Sodium tetraborate (see Borax).

Sodium tetrasulfide, liq., 40%, dms., c.l., works, frt. equald lb. .04½- —
dms., l.c.l., same basis lb. .05½- —

Sodium thiocyanate, CP, dms. lb. .55 - .65
Tech., anhyd., dms., 1 ton lots or more, works lb. .317 - —
dms., less than ton lots, works lb. .337 - —

Sodium thiosulfate, NF, cryst., bbls. lb. .13½- —
Tech., anhyd., 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb. bgs., l.c.l., t.l.l., frt. equald 100 lbs. 8.15 - —

Sodium thiosulfate, tech., anhyd., photo grade, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb. bgs., l.c.l., t.l.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —

Sodium thiosulfate, tech., pentahydrate, photo grade, 100-lb. bgs., l.c.l., t.l.l., frt. equald 100 lbs. 5.20 - —

Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —

Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb. cns., c.l., frt. alld. E lb. .42 - —
Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 8.16 - —
bgs., l.c.l., same basis 100 lbs. 8.56 - 9.06

Sodium trisilicate, powd., 1:3.2, bgs., c.l., works 100 lbs. 8.95 - —
bgs., l.c.l., works 100 lbs. 9.70 - 13.13
dms., c.l., works 100 lbs. 9.45 - —
dms., l.c.l., works 100 lbs. 10.20 - 10.60

Sodium tungstate, tech., kgs., dlvd. E lb. 1.32 - —

Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —

Sodium-carboxymethyl cellulose (see CMC).

Sodium-cinchophen (see Cinchophen-sodium).

Sodium - formaldehyde sulfoxylate, dms., c.l., dlvd lb. .21 - —
dms., l.c.l., same basis lb. .21½- —

Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —

Solvent naphtha, coaltar, high-flash, tanks, frt. equald gal. .30 - .35½

Solvent naphtha, petroleum, straight aromatic, 310°-360° F. b.r., 14°-16° C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —

Solvent naphtha, petroleum, partial aromatic, 355°-420° F. b.r., 17°-18° C. m.a.p., tankcars, New Jersey and New York, gal. .30 - —
Houston, Texas gal. .30 - —

Solvent naphtha, petroleum, partial aromatic, 211°-265° F. b.r., 31° C. m.a.p., tankcars, New Jersey and New York gal. .235 - —

286°-340° F. b.r., 22° C. m.a.p., tankcars, New Jersey and New York gal. .275 - —

319°-380° F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —

322°-395° F. b.r., 28° C. m.a.p., tankcars, New Jersey and New York gal. .28 - —

Sorbital, powd., dms., c.l., works lb. .36 - —
dms., 1 to 5-ton lots, works. lb. .38 - .39

Soln., coml., aqueous, dms., c.l., works lb. .24¼- —
dms., ton lots, works lb. .25 - —
dms., smaller lots, works lb. .25¼- —
tanks, works lb. .23¼- —

Sorbitan monostearate, fib. dms., 20,000-lb. lots, works lb. .33 - —

Sorbitan monostearate, fib. dms., 10,000 to 20,000-lb. lots, works lb. .35 - —
fib. dms., smaller lots, works lb. .38 - .40

Sorbitan tristearate, fib. dms., 20,000-lb. lots, works lb. .34 - —
fib. dms., 10,000 to 20,000-lb. lots, works lb. .36 - —
fib. dms., smaller lots, works lb. .39 - .41

Sorbitol, NF, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .19 - —
tanks, works lb. .16¼- —
cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works. lb. .25 - .26

Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works lb. .20¼- .29½

Soybean meal, 44%, bulk, unrestricted, Decatur ton. 50.00 - —

Soybean oil, crude, tanks, Decatur. lb. .09 - —

Foots, soapstock, acid 95%, tanks, N. Y. lb. .05½- —
Refd., alkali, dms. lb. .1330- .1325
tanks lb. .1130- —
Clarified, dms. lb. .1280- .1305
tanks lb. .1080- —
Salad, dms. lb. .13 - .13¼
tanks lb. .11 - .1110

Soybean oil acids, dbl. dist., dms., lb. .17 - .19½
tanks lb. .14½- —
S. D., dms. lb. .15¾- .18¼
tanks lb. .13¼- —

Sparteine sulfate, cns., 100 oz. or more oz. .80 - —

Spearmint leaves, dom., bls. lb. .75 - —

Spearmint oil, NF, dms. lb. 9.00 - 11.75

Sperm oil, bleached, winter, 45°, dms. lb. .1575- .1675
tanks lb. .1375- —
Nat., winter, 45°, dms. lb. .1475- .1575
tanks lb. .1275- —

Spermaceti wax, blocks, cs. lb. .31 - .33
Cakes, cs. lb. .32 - .34

Spruce oil, cns., dms. lb. 2.10 - 3.55

Squill, white, bls. lb. .16 - .18
Powd., bbls., bxs. lb. .17 - .20

St. John's bread, edible, bls. lb. .17 - —

Stannic chloride, anhyd., dms., works. lb. .829 - .849

Stannic oxide, dms., dlvd. lb. 1.12 - 1.13

Stannous chloride, anhyd dms., works lb. 1.026 - 1.280
Hydrous, cryst., dms., works lb. .88½- .89½

Stannous sulfate, dms., works lb. 1.079 - 1.099

Star root (see Helonias root).

Stargrass root (see Aletris root.)

Stavesacre seed, bgs. lb. .60 - .61

Stearic acid, dbl., pressed bgs lb. .15¾- .18¼
Single-pressed, bgs., lb. .15¼- .17¾
Triple-pressed, bgs. lb. .17½- .20

Stearine, oleo (see Oleostearine.)

Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston gal. .1475- —
tanks, group 3 gal. .12875- —

Stramonium leaves, bgs. lb. .13 - —

Streptomycin sulfate, bulk, gram. .035 - .036

Strontium bromide, NF, cryst., 100-lb. dm., f.o.b. E lb. .92 - —

Strontium carbonate, pure, dms., 5-ton lots or more, works. lb. .35 - —
dms., 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —

Strontium chromate, fib. dms., dlvd. lb. .48 - —

Strontium iodide, jars, 25-lb. lots lb. 3.57 - —

Strontium nitrate, bgs., c.l., works. 100 lbs. 11.00 - —
bgs., l.c.l., works 100 lbs. 12.00 - —

Strontium salicylate, NF, dms. lb. 1.88 - —

Strontium sulfate, air floated, 90%, 325 mesh, bgs., works. ton. 56.70 - 66.15

Strophanthin G (see Quabain, USP).
Strophanthin K bots. oz. 25.00 - 25.50

Strophanthus seed, Kombi, biologically tested, bgs lb. 3.50 - 3.75

Styrax gum, USP, cs. lb. 4.50 - 5.50

Styrene monomer, polymer grade, 99.6%, dms., c.l., frt. alld. lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, same basis lb. .14½- —

Tech., 99.2%, dms., c.l. lb. .1501- —
dms., l.c.l., same basis lb. .1701- —
tanks, bulk, same basis lb. .1251- —

Above prices are escalated for each calendar quarter on the basis of cost of crude oil at the well, cost of petroleum refining labor, and prices in the three major sections of the Wholesale Commodity Price Index.

Styrolyl acetate, bots. lb. 1.10 - —

Succinic acid, purif., cryst., dms., t.l., frt. alld lb. .62 - —
dms., l.t.l., same basis lb. .63 - .75

Succinic anhydride, dms., c.l., t.l., dlvd. lb. .51 - —
dms., l.c.l., same basis lb. .52 - —

Sucrose, refd., white, bgs., refy. E. lb. .0940- —

Sucrose acetate, isobutyrate, 90%, dms., t.l., dlvd. lb. .33½- —
dms., l.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 - —

Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs., l.c.l., works lb. 1.00 - —

Sugar (see Sucrose).

Sugar cane, wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 - .65
80-lb. ctns., spot lb. .65 - .75

Sulfabenzamide, dms. kilo. 8.80 - 9.90

Sulfabenzamide-sodium, dms. kilo. 9.00 - 10.10

Sulfacetamide, USP, fib. dms kilo. 6.61 - 6.83

Sulfacetamide-sodium, USP, fib. dms kilo. 8.15 - 9.25

Sulfadiazine, USP, microcrystals, dms kilo. 23.35 - 24.45

USP, powd., dms. kilo. 22.60 - 23.70

Sulfadiazine-sodium, USP, dms kilo. 24.80 - 25.90

Sulfaguanidine, NF X, dms kilo. 5.50 - 6.60

Sulfamerazine-sodium, USP, powd., dms kilo. 24.80 25.90

Sulfamethazine, USP XV, microcrystals, dms kilo. 19.65 - 20.75

USP XV, powd., dms. kilo. 18.75 - 19.85

Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs. 16.00 - —
dms., l.c.l., l.t.l., works 100 lbs. 17.50 18.50
Gran., dms., c.l., t.l., works. 100 lbs. 14.75 - —
dms., l.c.l., l.t.l., works 100 lbs. 16.25 - 17.25

Sulfanilamide, NF, reg., 1,000 lb., frt. equald lb. 1.50 - —
NF, fib. dm., frt. equald lb. 1.55 - —

Sulfanilamide quinoxaline, veterinary, dms kilo. 16.28 - —

Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt. alld lb. .23 - —

Sulfapyridine, USP XV, powd., bots., tins kilo. 15.45 - 16.55

Sulfapyridine-sodium, monohydrate, dms kilo. 16.55 - 17.65

Sulfathiazole, NF X, microcrystals, dms. kilo. 6.25 - 6.90
NF X, powd., dms. kilo. 5.50 - 6.15

Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —

Sulfur, coml., flour, bgs., mines. 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —

Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton. 23.50 - —
export, f.o.b. vessels, Gulf ports. long-ton. 25.00 - —
US and Canada, f.o.b. vessels Gulf ports long-ton. 25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower.

Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton. 24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.

Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salt block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —

Sulfur, rubbermakers, coml., reg., bgs., mines 100 lbs. 2.45 - —
bbls., mines 100 lbs. 3.70 - —
98-100%, passing through 325 mesh, bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.75 - —
bbls., mines 100 lbs. 4.00 - —

Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05¼- —
ret. dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —

Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .12
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —

Sulfur dioxide, refrigeration, cyls., dlvd lb. .33 - —

Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05¼- —
dms., l.c.l., same basis lb. .06¼- —
tanks, same basis lb. .04½- —

Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton. 18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton. 22.35 - —
98%, tanks, works ton. 23.50 - —
99%, tanks, works ton. 23.70 - —
100%, tanks, works ton. 23.95 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —

Sulfuric acid, CP, NF, consumers', cbys., l.c.l., same basis. lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. alld lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¼

Sulfuric acid, fuming (oleum), 20%, tanks, works ton. 25.00 - —
40%, tanks, works ton. 29.00 - —
65%, tanks works ton. 39.50 - —

Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton. .90 - .93
bulk, c.l., Carteret, N. J. unit-ton. .90 - .93
bulk, f.o.b. vessel at Fla. unit-ton. 1.03 - —

Superphosphate, triple, 48% or more p.p.a., pulv., bulk, c.l., East Tampa, Fla., unit-ton. 1.00 - —

Sweet birch oil, USP, northern, cns. lb. 4.00 - 9.50
USP, southern, cns. lb. 2.00 - 3.05

T

2,4,5-T, dms., c.l., works, frt. equald. lb. 1.18 - —
dms., l.c.l., same basis lb. 1.25 - —

2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb. 1.24 - —
dms., l.c.l., works lb. 1.29 - —

Talc, dom., fibrous, grd., bgs., c.l., works, New York ton. 28.00 - —
bgs., l.c.l., works ton. 31.00 - 36.00
fibrous, 99.5%, 325 mesh, bgs., c.l., works, New York ton. 31.00 - —
bgs., l.c.l., works ton. 34.00 - —

Talc, dom., fibrous, 99.95%, 400 mesh, micronized, bgs., c.l. works ton. 38.00 - —
625 mesh, micronized, bgs., c.l., works ton. 80.00 - —
ord., Calif., grd., bgs., c.l., works ton. 34.00 - 39.50
Vermont, off-color, grd., bgs., c.l., works ton. 19.40 - —
bgs., l.c.l., works ton. 37.00 - —
Imp., Canadian, grd., bgs., c.l., mines ton. 20.00 - 35.00

Tall oil, crude, dms., c.l., works lb. .04¼- .04⅛
tanks, works lb. .02¾- .03
Dist., depending on grade, dms., c.l., works lb. .06½- .07¼
dms., l.c.l., works lb. .07 - .08
tanks, works lb. .04½- .05¼

Tall oil, refd., depending upon grade, dms., c.l., works lb. .07¼- .09
dms., l.c.l., works lb. .07½- .09¼
tanks, works lb. .05¼- .06¾

Tall oil acids, dms., c.l., works lb. .07 - .08
dms., l.c.l. lb. .07¼- .08¼
tanks, works lb. .05 - .06

Tallow, edible, tanks, dlvd. lb. .06½- —
Inedible, fancy, bleachable, tanks. lb. .05⅞- —
fancy, guaranteed, bulk, f.o.b. steamer lb. .06½- —
dms., f.a.s. lb. .07½- —
tanks, dlvd. lb. .06½- .06¼
No. 1, tanks, dlvd. lb. .05½- .05¼
Prime, tanks, dlvd. lb. .05⅝- —
Special tanks, dlvd. lb. .05½- —
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. lb. .10½- .11

Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .14¾- .17¼

Tallow oil, acidless, dms., c.l. lb. .13½- —
dms., l.c.l. lb. .14½- .15½

Tangerine oil, Florida, dms. lb. 4.75 - —

Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 5.25 - 5.75

Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 - —
bbls., smaller lots lb. 2.06 - 2.07
NF, powd., bbls., 1,000-lb. lots lb. 1.95 - —
bbls., smaller lots lb. 1.96 - 1.99
Tech., dms. lb. 1.05 - —

Tansy oil, dms. lb. 6.60 - 8.00

Tar acid oil, 15-18%, dms., c.l., frt. equald gal. .53½- —
dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —

Tar acid oil, 25-28%, dms., c.l., same basis gal. .60 - —
dms., l.c.l., same basis gal. .62 - —
tanks, same basis gal. .50 - —
50-53%, dms., c.l., same basis gal. .75 - —
dms., l.c.l., same basis gal. .77 - —
tanks, same basis gal. .65 - —

Tar, coal (see Coaltar).

Tartar emetic (see Antimony potassium tartrate).

Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 - —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 - —
bgs., smaller lots, same basis lb. .47 - —

Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms. lb. .70 - —

Terpineol, extra, dms. lb. .50 - .60
Prime, dms. lb. .40 - .50

Terpinyl acetate, extra, cns., dms. lb. .64 - .75
Prime, dms. lb. .53 - .56

Terpinyl propionate, dms. lb. 1.70 - —

Terra alba (see Gypsum).

Testosterone, USP, bots. gram. No prices.

Testosterone propionate, USP, bots. gram. No prices.

Tetrachloroethane, dms., works lb. .14½- —

Tetrasodium pyrophosphate (see Sodium pyrophosphate).

Tetrachloroethylene, tech. (see Perchloroethylene).

Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 - .23⅛

Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .60 - —
dms., l.c.l., dlvd. E lb. .61½- —

Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 - —

Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .55 - —
tanks, dlvd. E lb. .51 - —

Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 - —

Tetrahydrofuran, dms., c.l., t.l., works lb. .36¼- —
dms., l.c.l., or l.t.l., works lb. .37 - —
tanks, works lb. .35 - —

Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .31½- —
dms., l.c.l., Memphis, Tenn. lb. .32½- —
dms., c.l., t.l., Newark, N.J. lb. .33½- —
dms., l.c.l., Newark, N.J. lb. .34½- —
tanks, dlvd. E. of Denver lb. .31 - —
tanks, dlvd. W. of Denver lb. .32 - —

Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E lb. .39 - —
l.c.l., l.t.l., same basis lb. .41 - —

Tetrapotassium phosphate (see potassium phosphate).

Thallium metal, dlvd. lb. 7.50 - 10.00

Thallium sulfate, 99%, bots., dlvd. lb. 5.00 - 10.00

Theobromine, NF, fib. dms., 100-lbs., f.o.b. works lb. 4.40 - 4.75

Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.45 - —

Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 - —

Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 - —

Thiamine hydrochloride, USP, fib. dms., frt. alld kilo. 36.00 - —
USP, ampule grade, fib., dms., frt. alld kilo. 38.00 - —

Thiamine mononitrate, USP, fib. dms., frt. alld kilo. 36.00 - —

Thiocarbanilide, dms., ton lots lb. .72 - —
dms., less ton lots lb. .74 - —

Thiodiphenylamine (see Phenothiazine).

Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 - —
Tungstated, PTMA, kgs., works lb. 6.20 - —

Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 - —

Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 - —

Thiourea, tech., bgs., t.l., frt. alld. lb. .30 - —
bgs., ton lots, same basis lb. .32 - —
bgs., less than ton lots, same basis lb. .33 - —

Thorium nitrate, purif., fib. dms., 100-lb. lots or more. works lb. 3.50 - —

dl-Threonine, bots., 1-kilo lots kilo. 275.00 - —
Thyme leaves, French, bgs. lb. .25 - —
Spanish, bgs. lb. .09 - —
Thyme leaves, bgs. lb. .29 - —
Spanish, bgs. lb. .11 - —

Thyme oil, NF, red, cns., dms.	lb.	1.90	- 2.25
NF, white, cns.	lb.	2.20	- 2.60
Tech., white, cns.	lb.	.40	- 1.85
Thymol, fib. dms., 25-lbs., f.o.b. works	lb.	3.06	- —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works	lb.	7.40	- —
Timbo root (see Cube root).			
Tin chloride (see Stannous chloride, anhyd.).			
Tin crystals (see Stannous chloride, hydrous).			
Tin metal (Straits)	lb.	1.05	- —
Tin oxide (see Stannic oxide).			
Tin sulfate (see Stannous sulfate).			
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).			
Titanium dioxide, anatase, ceramic, bgs., c.l., dlvd.	lb.	.25½-	—
bgs., l.c.l., dlvd.	lb.	.26½-	—
reg., bgs., c.l., dlvd.	lb.	.25½-	—
bgs., l.c.l., dlvd.	lb.	.26½-	—
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville, Fla.	ton.	180.00	- —
bgs., 5-ton lots, Niagara Falls, N. Y.	ton.	205.00	- —
bgs., ton lots, same basis.	ton.	215.00	- —
Milled metallurgical titanium dioxide $7.50 per ton higher.			
Titanium dioxide, rutile, nonchalking, bgs., c.l., dlvd. E.	lb.	.27½-	—
bgs., l.c.l., dlvd. E.	lb.	.28½-	—
Titanium dioxide-calcium pigment, 30% Ti O_2, reg., bgs., c.l., dlvd.	lb.	.09¾-	—
bgs., l.c.l., works	lb.	.09⅞-	—
50% Ti O_2, high-tinting, dms., c.l.	lb.	.14¾-	—
dms., l.c.l.	lb.	.14⅞-	—
Titanium hydride, powd., dms., works	lb.	8.10	- 9.00
Titanium tetrachloride, tech., dms., c.l., works	lb.	.26	- —
dms., l.c.l., works	lb.	.27½-	.29
tanks, works	lb.	.20	- —
Tobias acid, dms., c.l., t.l.	lb.	.78	- —
dms., l.c.l.	lb.	.81	- —
d-a-Tocopherols, NF, mixer, conc., pure basis, bots.	kilo.	67.00	- —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots.	kilo.	122.00	- —
d-a-Tocopheryl acid succinate, cryst., bots.	kilo.	109.00	- —
dl-a-Tocopherol, bots.	kilo.	99.00	- —
dl-a-Tocopheryl acetate, bots.	kilo.	90.00	- —
25% dry, powd., bots.	kilo.	22.50	-24.00
33% dry, powd., bots.	kilo.	30.00	-31.50
o-Tolidine base, dry, kgs., 100% basis	lb.	1.55	- —
Paste, kgs., 100% basis	lb.	1.50	- —

TOLUOL

Toluol quotations, both coaltar and petroleum, may be found under Toluene.

o-Tolidine, hydrochloride paste, kgs., 100% basis	lb.	1.50	- —
Tolu balsam, cns.	lb.	3.50	- 3.65
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies	gal.	.25	- —
Toluene, petroleum, indust., tanks, dlvd. E. of Rockies	gal.	.25	- —
p-Toluenesulfonamide, powd., dms., t.l., works	lb.	.60	- —
dms., l.t.l., same basis	lb.	.63	- —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld.	lb.	.16	- —
1,000-lb. or more, same basis	lb.	.18	- —
less than 1,000-lb., same basis	lb.	.23	- —
tanks, same basis	lb.	.14	- —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.			
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l.	lb.	.90	- —
dms., 125 lbs. to t.l.	lb.	1.00	- —
m-Toluidine, dms., c.l., works, frt. alld.	lb.	.83	- —
dms., l.c.l., same basis	lb.	.84	- —
tanks, same basis	lb.	.82	- —
o-Toluidine, dms., c.l., works, frt. alld.	lb.	.30	- —
dms., l.c.l., same basis	lb	.31	- —
tanks, same basis	lb.	.28	- —
p-Toluidine, tech., flake, dms., frt. alld.	lb.	.50	- —
Cast, dms., frt. alld.	lb.	.45	- —
p-Toluidine-m-sulfonic acid, dms., works	lb.	.92	- 1.04
Toluidine red toner, deep shades, kgs., works	lb.	1.70	- —
Light shades, kgs, works	lb.	1.70	- —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld.	lb.	1.10	- —
Tonka beans, Angostura, cks.	lb.	1.50	- —
Brazilian, Surinam, cs.	lb.	1.30	- —
Totaquine, 100-oz. lots, cns.	oz.	.42	- —
Toxaphene, dms., c.l., t.l., works.	lb.	.22	- —
dms., l.c.l., l.t.l., works	lb.	.28	- —
Tragacanth gum, No. 1, ribbons, cs.	lb.	3.90	- 3.95
No. 2, cs.	lb.	3.60	- 3.75
No. 3, cs.	lb.	3.25	- 3.40
USP, powd., bbls.	lb.	1.05	- 1.15
Triacetin dms., c.l., dlvd. E. of Rockies	lb.	.39	- —
dms., l.c.l., same basis	lb.	.40	- —
tanks, same basis	lb.	.37	- —
Triallylamine, dms., c.l., dlvd.	lb.	.985	- —
dms., l.c.l., dlvd.	lb.	.995	- —
tanks, dlvd.	lb.	.96	- —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver.	lb.	.42½-	—
non-ret. dms., l.c.l., frt. alld. E. of Denver	lb.	.43½-	—
tanks, frt. alld. E. of Denver	lb.	.40	- —
Tributyl phosphate, dms., c.l., works.	lb.	.52½-	—
dms, l.c.l., same basis	lb.	.53½-	—
tanks, same basis	lb.	.50	- —
Tributylamine dms., c.l., works.	lb.	.67½-	—
dms., l.c.l., same basis	lb.	.69	- —
tanks, same basis	lb.	.65	- —
Tributyrin, dms., l.c.l., dlvd.	lb.	.69	- —
Trichloroacetic acid, bots	lb.	2.00	- 2.50
Trichlorobenzene, dms., c.l., frt. alld. E.	lb.	.15	- —
dms., l.c.l., frt. alld. E.	lb.	.16	- —
tanks, frt. alld. E.	lb.	.13¼-	—
Trichlorobenzene prices in the West 1¾c. higher.			
1,1,1-Trichloroethane, dms., c.l., dlvd.	lb.	.13¼-	—
dms, l.c.l., dlvd.	lb.	.16¼-	—
tanks, dlvd.	lb.	.12¼-	—
1,1,2-Trichloroethane, dms., c.l., works.	lb.	.13½-	—
dms., l.c.l., dlvd. E.	lb.	.14¼-	—
tanks, works	lb.	.11½-	—
Trichloroethylene, dms., c.l., or t.l., dlvd.	lb.	.14	- —
dms., l.c.l., dlvd.	lb.	.15¼-	—
tanks, dlvd.	lb.	.12¾-	—
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald.	lb.	.65	- —
dms., l.c.l., same basis	lb.	.75	- —
Trichlorophenoxyacetic acid (see 2,4,5-T).			
Tricholine citrate, 65% soln., ret. cbys., works, frt. adjusted.	lb.	1.40	- 1.45
Tricresyl phosphate, coaltar, dms., c.l., dlvd.	lb.	.35	- —
dms., l.c.l., dlvd.	lb.	.36	- —
tanks, dlvd.	lb.	.32½-	—
Tricresyl phosphate, petroleum, dms., c.l., dlvd.	lb.	.34½-	—
dms., l.c.l., dlvd.	lb.	.35½-	—
tanks, dlvd.	lb.	.32½-	—
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E.	lb.	.26½-	—
dms., l.c.l., dlvd. E.	lb.	.28	- —
tanks, dlvd. E.	lb.	.24	- —
Triethanolamine, dms., c.l., dlvd. E.	lb.	.24½-	—
dms., l.c.l., same basis	lb.	.26	- —
tanks, same basis	lb.	.22	- —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld.	lb.	.25½-	—
dms., l.t.l., frt. alld.	lb.	.26½-	—
tanks, frt. alld.	lb.	.24½-	—
Triethylamine, dms., c.l., dlvd. E.	lb.	.50	- —
dms., l.c.l., same basis	lb.	.51½-	—
tanks, same basis	lb.	.47½-	—
Triethyl nitrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver	lb.	.46¼-	—
non-ret. dms., l.c.l., frt. alld. E. of Denver	lb.	.47¼-	—
tanks, frt. alld. E. of Denver.	lb.	.43¾-	—
Triethyl phosphate, dms., c.l., dlvd.	lb.	.40½-	—
dms., l.c.l., dlvd.	lb.	.41½-	—
tanks, dlvd.	lb.	.38	- —
Triethylene glycol, dms., c.l., dlvd. E.	lb.	.21	- —
dms., l.c.l., dlvd. E.	lb.	.22½-	—
tanks, same basis	lb.	.18½-	—
Triethylenetetramine, dms., c.l., dlvd. E.	lb.	.51½-	—
dms., l.c.l., dlvd. E.	lb.	.53	- —
tanks, dlvd. E.	lb.	.49	- —
Triisobutylene, tanks, dlvd.	lb.	.08	- —
Tri-isopropanolamine, dms., c.l., dlvd. E.	lb.	.23¼-	—
dms., l.c.l., dlvd. E.	lb.	.24¾-	—
tanks, dlvd. E.	lb.	.20¾-	—
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis	lb.	.30	- .303
tanks, frt. equald, 100% basis.	lb.	.26	- —
25-40% soln., dms., c.l., frt. equald, 100% basis.	lb.	.35	- —
dms., l.c.l., frt. equald, 100% basis.	lb.	.35½-	—
tanks, 100% basis, frt. equald.	lb.	.26	- —
Trimethylolpropane, dms., c.l., t.l., dlvd. E.	lb.	.35	- —
dms., l.c.l., l.t.l., same basis	lb.	.36	- —
Trioxanes, pure, dms., c.l., t.l., works.	lb.	.50	- —
dms., l.c.l., works	lb.	.51½-	—
Tripentaerythritol, bgs., c.l., t.l., dlvd. E.	lb.	.40	- —
bgs., l.c.l., l.t.l., dlvd. E.	lb.	.41	- —
Triphenyl phosphate, bbls., c.l., frt. equald.	lb.	.41½-	—
bbls., l.c.l., frt. equald	lb.	.43½-	—
Triphenylguanidine, bbls., works	lb.	.90	- —
Tripropylene, dms., c.l., dlvd. E.	gal.	.44	- —
dms., l.c.l., same basis	gal.	.54	- —
tanks, same basis	gal.	.28	- —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E.	lb.	.20½-	—
dms., l.c.l., l.t.l., frt. alld. E.	lb.	.22	- —
tankcars and compartmented tankcars, frt. alld. E.	lb.	.17½-	—
Tripopylene glycol, tankwagon and compartmented tankwagons, 1,000 gals. min. frt. alld. E.	lb.	.18	- —
Tripropylene glycol prices 1c. per lb. higher in west.			
Trisodium phosphate (see Sodium phosphate tribasic).			
dl-Tryptophane, fib., dms., works	lb.	55.00	- —
Tung oil, dms., c.l., New York	lb.	.24¾-	.25⅛
tanks, imported, N. Y.	lb.	.23¼-	—
tanks, domestic, mills	lb.	.22½-	—
Tungsten metal, powd., 2.0-2.5 microns, dms., works	lb.	4.25	- —
Tungstic acid, tech., dms., 1,000-lb. lots, works	lb.	2.25	- —
dms., smaller lots, works	lb.	2.45	- —
Turkey red, bbls., works	lb.	.62	- —
Turpentine, gum (see Protective Coatings market, Naval Stores).			
Turpentine oil, NF, cns., dms.	lb.	.28	- .50
Tuscan red, bbls., frt. equald	lb.	.26	- .32
Tyrothricin, USP, 1 to 5 kilos	gram.	.54	- —

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Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies	lb.	.35	- .39⅛
Jobbing types, bbls., same basis.	lb.	.19	- —
Regular types, dry bbls., same basis	lb.	.22½-	.35
Ultramarine blue prices 1c. higher W. of Rockies.			
Umber pigment, burnt, American, bgs., c.l., works	lb.	.07½-	.07¾
bgs., l.c.l., works	lb.	.07¾-	.08
Umber pigment, burnt, turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N. Y.	lb.	.08¼-	—
Raw, American, bgs., works	lb.	.07¼-	.08¼
Turkey-type, bgs., works	lb.	.08½-	.08¾

IN WHITE PIGMENTATION

TITANOX*-C-50

FILLS THE GAP IN HIDING POWER...

...between rutile titanium dioxide pigment on the one hand and 30% titanium (rutile)-calcium pigment on the other. And, in certain paint compositions, it is a valuable tool for the formulator.

A true composite pigment of approximately 50% rutile titanium dioxide and 50% calcium sulphate (anhydrite), TITANOX-C-50 occupies an intermediate position in hiding power between rutile "pure" titanium dioxide such as TITANOX-RA and 30% titanium (rutile)-calcium such as TITANOX-RCHT. Unlike unextended titanium dioxide pigments, TITANOX-C-50 does not decline rapidly in hiding power as its pigment volume concentration is increased. And, in comparison with TITANOX-RCHT because of lesser bulk or volume, TITANOX-C-50 is an attractively priced replacement for the 30% composite pigment where pigment volume must be lowered while hiding is maintained or increased.

The high titanium dioxide content of TITANOX-C-50 and its unique union with extender produce greater tinting strength and higher hiding power than in any other white composite pigment ever produced. Usually, TITANOX-C-50 presents greater hiding efficiency per pound of titanium dioxide content than mixtures of "pure" titanium dioxide and extender. In some formulations as low as 4 pounds of TITANOX-C-50 has done the work of 3 pounds of rutile "pure" titanium dioxide. Easy to mix and grind, TITANOX-C-50 is excellently suited to:

- **Semi-glosses**
- **Flat Wall Paints—such as alkyds—where formulation dictates the need for a lower prime pigment volume than might be attainable with composite pigments having lower tinting strengths.**
- **Enamel Undercoaters**
- **Tinted Enamels**
- **General Utility Paints**

TITANOX-C-50 may be particularly suited to your requirements. For more complete details contact our Technical Service Department. Titanium Pigment Corporation, 111 Broadway, New York 6, N. Y.; offices and warehouses in principal cities. In Canada: Canadian Titanium Pigments, Ltd., Montreal.

*TITANOX is a registered trade mark of National Lead Company for titanium pigments offered by Titanium Pigment Corporation.

TITANOX
the brightest name in pigments

TITANIUM PIGMENT CORPORATION
Subsidiary of NATIONAL LEAD COMPANY

Undecylenic acid, dms. ..... lb. 1.28 - —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N. indust., bgs., c.l., t.l., dlvd. E ton.125.00 - —
bgs., l.c.l., dlvd. E, ex whse. ton.145.00 - —
45% N, agricultural, bgs., c.l., (30 tons) dlvd. E ton.103.00 - —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton.120.00 - —
37 grade, tanks, same basis ton.145.00 - —
Urethane, USP. dms., t.l., f.o.b., works. lb. .65 - —
dms., l.t.l., same basis ..... lb. .70 - —
Uva-ursi leaves, bls ..... lb. .12 - —

V

Valerian root, Belgian bgs. .... lb. .32 - —
Indian, bgs. ..... lb. .25 - —
dl-Valine, dms., works ..... lb. 21.00 -27.50
Vanadium pentoxide, tech., dms., works. lb. 1.38 - —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins .... lb. 12.25 - —
Mexican cuts, tins ..... lb. 11.75 - —
whole, tins ..... lb. 12.25 - —
Vanillin ex lignin, 100-lb. fib. dms., 1,000-lb. lots or more lb. 3.00 - —
100-lb fib. dms., 500-lb. lots lb. 3.10 - —
100-lb. fib. dms., cns. 100-lb. lots. lb. 3.25 - 3.35
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works ..... lb. .0575- —
30%, bgs., works ..... lb. .06 - —
35%, bgs., works ..... lb. .0625- —
40%, bgs., works ..... lb. .0675- —
Vetiver oil, Bourbon, cns. ..... lb. 17.25 -17.50
Haitian, cns. ..... lb. 14.50 -15.50
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies ... lb. 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W. of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .20 - —
55-gal. dms., l.c.l., dlvd. .... lb. .21½- —
tanks, dlvd. ..... lb. .17½- —
tanktrucks less than 4,000 gal., dlvd lb. .18 - —
Zone 2, 55-gal. dms., c.l., dlvd lb. .21 - —
55-gal. dms., l.c.l., dlvd. ..... lb. .24 - —
tanks, dlvd. ..... lb. .18½- —
Vinyl acetate monomer, zone 2, tanktrucks, less than 4,000 gals. dlvd. lb. .19 - —
Zone 1 is all continental US except zone 2, zone 2 comprises Ariz., Calif., Idaho, Mont., Nev., Ore., Utah and Wash.
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 - —
Vinyl chloride monomer, tanks, works lb. .125 - —
Vinyl ether USP, anethesia, bots., 50cc., hospitals bot. 1.12 - —
bots., 75cc., hospitals ..... bot. 1.56 - —
Vinyl ethyl ether tech. dms., c.l., works. lb. .29¼- —
dms., l.c.l., works ..... lb. .30 - —
tanks, works ..... lb. .27¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 - —
dms., l.c.l., same basis ..... lb. .50 - —
tanks, same basis ..... lb. .47 - —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb. 1.20 - —
1 to 9 dms., works ..... lb. 1.35 - —
tanks, works ..... lb. 1.15 - —
Vinyltoluene, dms., c.l., f.o.b., works. lb. .16½- —
dms., l.c.l., same basis ..... lb. .18½- —
tanks, f.o.b. dest. frt. prepaid lb. .14 - —
Viosterol in nat. vegetable oil, 1,000,000 D units per gram, bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Virginia type red, bbls., works lb. 1.40 - —
Vitiamin A acetate, syn., cryst., beads, 500,000 A units per gram gram .07¼- —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.65.00 - —
325,000 units per gram, same basis kilo.43.88 - —
250,000 units per gram, same basis. kilo.33.75 - —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq. in oil, 1,000,000 A units per gram 1,000,000 units. .09¼- —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram 1,000,000 units. .09½- —
Vitamin B_1 (see Thiamine hydrochloride).
Vitamin B_2 (see Riboflavin and Yeast).
Vitamin B_{12}, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.95.00 - —
0.1% vitamin B_{12}, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo dms gram. 1.14 - —
0.1% vitamin B_{12}, USP adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms. gram. 1.14 - —
Vitamin B_{12}, oral grade solids in containers of 1 and 10 gram of B_{12} activity gram.85.00 - —
0.1% trituration of cryst., B_{12} with dicalcium phosphate or mannitol, 1-10 kilo.109.00 - —
Vitamin B_{12}, 0.1% cobalamin concentrate, NF, adsorbed on resin, 500-gram bots., 1-5 kilo, dms., frt. alld gram. .90 - —
0.1% cobalamin concentrate in gelatin, 1-10 kilo. dms., frt. alld gram. .90 - —
Vitamin C (see Ascorbic acid).
Vitamin D_2 (see Codliver and Fishliver oils, Calciferol and Viosterol).
Vitamin D, dry, 850,000 units per gram, kilo lots kilo.42.50 - —
850,000 units per gram less than kilo lots kilo.45.00 - —
Vitamin E (see a-Tocopherol and Wheat germ oil).
Vitamin H (see Biotin).
Vitamin K, active (see Menadione).
Violet methyl toner (see Methyl violet toner).
VM&P naphtha (see Naphtha, VM&P, petroleum).

W

Wahoo root bark, bls. ..... lb. 2.00 - 2.25
Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 - —
dms., 25-49-lb. lots, New York or Chicago lb. 2.05 - —
dms., 5-24-lb. lots, New York or Chicago lb. 2.15 - —
Watchung-type reds., bbls ..... lb. 1.95 - —

WAXES
Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.

Wheat germ oil, 5-gal. dms. .. gal. 12.25 - —
White lead (see Lead, white).
White mineral oil (see Mineral oil, white).
White pine bark, rossed, bls. .. lb. .21 - .22
White precipitate, USP, powd., dms., 100 lbs., f.o.b. works lb. 5.50 - —
Whiting (see Calcium carbonate).
Wild cherry bark, thin, nat., bls lb. .22 - —
Thin, rossed, bls. ..... lb. .22 Nom.
Wintergreen oil, USP nat. northern, cns .. lb. 6.35 -17.50
USP, nat. southern cns ..... lb. 3.75 - 7.00
Wintergreen oil, syn. (see Methyl salicylate).
Witch hazel bark, bls ..... lb. .16 - .17
Witch hazel leaves, bls. ..... lb. .28 - .30
Wollastonite fine bgs., c.l., works. ton.39.50 - —
bgs., l.c.l, ex whse ..... ton.56.00 - —
Medium, bgs., c.l., works .... ton.27.00 - —
bgs., l.c.l., ex whse. ..... ton.44.00 - —
Wood alcohol (see Methanol).
Wood oil (see Tung oil).
Woolfat crude (see Degras).
Woolfat USP (see Lanolin).
Wormseed Levant bgs. ..... lb. 2.50 - —
Wormseed oil (see Chenopodium oil NF).
Wormwood oil, cns ..... lb. 4.75 - 5.00

X

Xylene coaltar, indust., tanks, works:
Bethlehem, Pa. ..... gal. .29 - —
Birmingham dist. ..... gal. .29 - —
Chicago dist. ..... gal. .28½- —
Cleveland dist. ..... gal. .29 - —
Geneva, Utah ..... gal. .29 - —
Johnstown, Pa. ..... gal. .29 - —
Lackawanna, N. Y ... gal. .29½- —
Xylene, coaltar, indust., tanks, works:
Lone Star, Tex. ..... gal. .27 - —
Lorain, Ohio ..... gal. .29 - —
Middletown, Ohio ..... gal. .30 - —
Minnequa, Col. ..... gal. .29 - —
Philadelphia dist. ..... gal. .29 - —
Pittsburgh dist. ..... gal. .29 - —
Sparrows Point, Md. ... gal. .29 - —
Terre Haute, Ind. ..... gal .29 - —
Youngstown, Ohio ..... gal. .29 - —
Xylene, petroleum, indust., tanks f.o.b. works:
Bayonne, N. J ..... gal. .29 - —
Baytown, Tex. ..... gal. .27 - —
Charleston, S. C. ..... gal. .29 - —
Chicago, Ill ..... gal. .28½- —
Detroit, Mich., dlvd ... gal. .27½- .29
Houston, Tex. ..... gal. .27 - —
Philadelphia, Pa. ..... gal. .29 - —
Providence, R. I. ..... gal. .30 - —
Sewell's Point, Va. .... gal. .28 - —
Wood River, Ill. ..... gal. .28½- —
m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .25 - —
dms., l.c.l., f.o.b., Richmond, Calif lb. .26 - —
tanks, frt. alld. ..... lb. .23 - —
o-Xylene, dms., c.l., works ..... lb. .08 - —
dms., l.c.l., works ..... lb. .09 - —
tanks, works ..... lb. .06 - .06½
p-Xylene, dms., c.l., works ..... lb. .20 - —
dms., l.c.l., works ..... lb. .21 - —
tanks, frt. alld. ..... lb. .1645- —
Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works lb. .23 - —
56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 - —
Xylenol, cryst., 60°-62°C., m.p., dms., l.c.l., same basis. lb. .40 - —
Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 - —
dms., l.c.l., same basis gal. 1.30 - —
tanks, same basis ..... gal. 1.05 - —
b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis. gal. 1.35 - —
Xylenol fraction, b.r. 7°-9° C., dry at or below 227° C., dms., l.c.l., same basis. gal. 1.40 - —
2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 - —
2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 - —
Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 - —
dms., l.c.l., same basis ..... lb. .40 - —
tanks, same basis ..... lb. .33 - —

XYLOL
Xylol quotations, both coaltar and petroleum, may be found under Xylene.

Y

Yara yara oil, cns. ..... lb. 2.15 - 3.05
Yeast, brewers, debittered, USP, Saccharomyces, dlvd lb. .27 - —
dry, USP, 50 Int'l B units per gram, 100-lb. dms .... lb. .47 - —
USP, 90 Int'l B units per gram, 100-lb. dms lb. .52 - —
USP, 200 Int'l B units per gram, 100-lb. dms lb. .56 - —

You can believe your eyes...

IT'S REALLY FREE-FLOWING, HIGH-PURITY CRYSTAL UREA!

Grace has found the way to combine the advantages of easy-to-handle, free-flowing prilled urea with the higher purity of top-quality crystal urea. Result: high-purity *crystal* urea that's free flowing, noncaking... that assures uniform, superior results at lowest possible cost.

If you use urea in any quantity, for any purpose, prove to yourself why Grace Urea is best for you. Use the coupon to request a free sample.

W. R. GRACE & CO.
NITROGEN PRODUCTS Division
147 Jefferson Avenue, Memphis, Tennessee
Please send me a free sample and specifications of Grace Crystal Urea (46% nitrogen).
We use urea for _____ Purpose
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Address _____
City _____ Zone ___ State ___
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My Title _____

Remember, Grace is one of the "big three" producers of urea in the nation.

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NITROGEN PRODUCTS DIVISION
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MEMPHIS—147 Jefferson Ave., JAckson 7-1551 • CHICAGO—75 E. Wacker, FRanklin 2-6424
NEW YORK—7 Hanover Square, Digby 4-1200 • ST. LOUIS—8230 Forsyth, PArkview 7-1715
CHARLOTTE, N. C.—1402 East Morehead St., FRanklin 6-3329

Yeast, brewers, debittered, USP, 300 Int'l B units per gram, 100-lb. dms..lb. .60 • —
Torula, USP, dlvd. .....lb. .18 • —

YELLOW PIGMENTS

Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow.

Yerba santa leaves, bls. .....lb. .40 • .45
Ylang-ylang oil, Bourbon, bots...lb. 7.00 -22.00
extra, bots. .....lb.24.00 -33.00
extra, bots. .....lb.24.00 -33.00
Yohimbine hydrochloride, bots., tins. oz. 3.75 • 4.25

Z

Zein, bgs., 36,000-lb. lots or more, bgs., 500-lb. lots or more, dlvd..lb. .343 • —
bgs., smaller lots, dlvd.....lb. .373 • —
Zinc acetate, NF, VIII, dms.....lb. .53 • —
Tech., dms., l.t.l., works.....lb. .29¾ • —
Zinc borate, bgs., 1,000 lbs or more, works..lb. .25 • —
bgs., less than 1,000 lbs., same basis..lb. .27 • —
Zinc chloride, NF, gran., dms...lb. .42 • —
NF, precip., powd., dms.....lb. .26 • —
Tech., soln., 50%, dms., c.l., works..100 lbs. 5.80 • —
dms., l.c.l., works..100 lbs. 6.40 • —
tanks, works .....100 lbs. 5.15 • —
fused, dms., c.l., works..100 lbs.10.70 • —
dms., l.c.l., works..100lbs.11.20 • —
gran., fib. dms., c.l., works, 100 lbs.11.45 • —
fib. dms., l.c.l., works..100 lbs.11.95 • —
Zinc chromate bbls., dlvd. .....lb. .29 • —
Basic bbls., dlvd. .....lb. .34 • —
Zinc cyanide dms. 1,000-lb. lots or more, works..lb. .55 • —
dms., smaller lots, works.....lb. .57 • —
Zinc dust coml. bbls., c.l., works, lb. .17 • —
Pigment, bbls., c.l., works....lb. .16½ • —
bbls., l.c.l., works.....lb. .18¼ • —
Zinc fluoride, bbls., works.....lb. .49 • .50
Zinc hydrosulfite, dms., c.l., frt. alld..lb. .21½ • —
dms., l.c.l., frt. alld. .....lb. .23½ • —
Zinc metal prime western, slaus, E. St. Louis..lb .13 • —
Prime western slabs, New York, lb. .13½ • —
Zinc naphthenate liq. 8% Zn., dms., frt. alld..lb. .27 • —
10% Zn., dms., frt. alld. ....lb. .33 • —
Zinc nitrate tech. cryst., bbls., works..lb. .20 • —
Zinc oxide, pigment, American process, lead-free bgs., c.l., frt. alld..lb .14½ • —
bgs., l.c.l., 10 tons or more, same basis..lb. .15 • —
bgs., l.c.l., smaller lots, same basis..lb. .15½ • —
leaded, 35% bgs, c.l., mills, frt. alld..lb. .15⅜ • —
bgs., l.c.l., 10 tons or more, same basis..lb. .15⅞ • —
leaded 50% bgs., c.l., same basis..lb. .15¾ • —
Zinc oxide pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis..lb. .16¼ • —
USP, gran., dms. .....lb. .26 • —
French process, green seal, bgs., c.l., mills, frt alld..lb. .16¼ • —
bgs., l.c.l., 10 tons or more, same basis..lb. 16¾ • —
bgs., l.c.l, smaller lots, same basis..lb. .17¼ • —
red seal, bgs., c.l., same basis, lb. .15¾ • —
bgs., l.c.l., 10 tons or more, same basis..lb. .16¼ • —
bgs., l.c.l, smaller lots, same basis..lb. 16¾ • —
white seal, bgs., c.l., same basis..lb .16¾ • —
bgs., l.c.l., 10 tons or more, same basis..lb .17¼ • —
bgs., l.c.l., smaller lots, same basis..lb .17¾ • —
Zinc oxide, USP dms., c.l., frt. alld, lb. .18¼ • —
dms., l.c.l., 10 tons or more, same basis..lb .18¾ • —
dms., l.c.l., smaller lots, same basis..lb. .19¼ • —
Zinc phenolsulfonate, NF, gran., dms..lb. .45 • .46
NF, powd., dms. .....lb. .48 • .49
Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld..lb. .40¼ • —
Zinc silicofluoride, dms., works..lb. .12½ • .14
Zinc stearate, tech., USP, ctns., c.l. lb. .41 • —
ctns., l.c.l. .....lb. .42 • .46
Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E. 100 lbs. 8.75 • —
bgs., l.c.l., dlvd. E..100 lbs. 9.75 • —
Zinc sulfate in bbls 40c. higher.
Zinc sulfide, pure, bgs., c.l., dlvd lb. .2530 —
Zinc undecylenate, dms. .....lb. 2.00 • —
Zinc, yellow (see Zinc chromate).
Zinc-ammonium chloride, bgs., c.l., works..100 lbs.10.25 • —
bbls., c.l., works.....100 lbs.10.85 • —
bbls., l.c.l., works.....100 lbs.11.35 • —
Zinc formaldehyde sulfoxylate, basic, 300-lb. dms., frt. alld..lb. .26 • —
Normal, 250-lb. dms., frt. alld..lb. .52 • —
Zircon (G) gran., bgs., c.l., works, lb. .03½ • —
bgs., 5 tons to c.l., works....lb. .03⅝ • —
bgs., 1 ton to 9,999-lb. lots, works..lb. .04 • —
bgs., smaller lots, works....lb. .06½ • —
Zircon (G), milled, bgs., c.l., works, lb. .04½ • —
bgs., 5 tons to c.l., works....lb. .04⅝ • —
bgs., 1 ton to 9,999-lb. lots, works..lb. .04⅝ • —
bgs., 500-1,999-lb. lots, works..lb. .07½ • —
Zircon (G) in barrels 1c. higher.
Zirconium acetate soln., 13% ZrO_2, dms., c.l., 30,000 lbs. min., works..lb. .23 • —
Zirconium hydride, powd., electronic grade, dms., works..lb.14.00 -15.00
Zirconium oxide, CP, white, grd., bbls. or bgs., works..lb. 1.50 • —
Electric-fused lump, bgs., 500 to 1,999-lb. lots, works..lb. .48½ • —
bgs., smaller lots, works...lb. .51 • —
milled, bgs., c.l., works.....lb. .62 • —
bgs., 5-ton lots, works.....lb. .62½ • —
bgs., 1-ton to 9,999-lb. lots, works..lb. .63½ • —
bgs., 500 to 1,999-lb. lots, works..lb. .64 • —
bgs., smaller lots, works....lb. .66 • —
Zirconium Oxide,
Glass polishing grade, 94-97% ZrO_2, bgs., works.....lb. .55 • .65
Opacifier grade, 85-90% ZrO_2, bgs., lb. .27 • .50
Stabilized oxide, 91% ZrO_2, milled, bgs..lb. .62 • .85
Zirconium oxychloride, cryst., ctns., 5-ton lots, works.....lb. .37½ • —
bgs., l.c.l., smaller lots, same basis..lb. .16⅝ • —

CSMA Aerosol Division Arranges Packaging Contest

Arrangements for the ninth annual aerosol package awards contest have been completed by the aerosol division of Chemical Specialties Manufacturers Association. Winners will be announced at the CSMA annal meeting in Hollywood, Fla., December 5 to 8.

Award certificates will be presented for the best entry in each of fifteen product categories. Three categories newly added this year are automotive, veterinary and pet products, and horticultural products. A "best package of the show" will be chosen from the group winners.

Contest entry blanks are being mailed out this week by CSMA headquarters to all known marketers and fillers. The blanks can be secured from the association's headquarters at 50 East 41st Street in New York.

Surfactants Output, Sales

—Continued from page 7

amounted to 1.060 billion pounds, or 71 percent of the total production of surface-active agents; sales were 1.016 billion pounds, valued at $165 million.

Production of non-ionic materials in 1959 totaled 399 million pounds; sales amounted to 313 million pounds, valued at $86 million.

The combined output of amphoteric and cationic materials in 1959 amounted to 35 million pounds; combined sales of these materials were 33 million pounds, valued at $17 million.

Production of cyclic surface-active agents in 1959 totaled 936 million pounds —10.6 percent more than the 846 million pounds reported for 1958.

Sales of cyclic surface-active agents in 1959 were about 895 million pounds, valued at $139 million, compared with 765 million pounds, valued at about $125 million, in 1958. The dodecylbenzenesulfonic acid type of surface-active agent was the most important product in this class.

The output of acyclic surface-active agents in 1959 amounted to 558 million pounds—about 9.6 percent more than the 509 million pounds reported for 1958.

The sulfated and sulfonated acyclic compounds accounted for somewhat more than half of this output; the alcohols and esters were the most important individual products.

Sales of acyclic surface-active agents in 1959 amounted to 467 million pounds, valued at $129 million.

All the above statistics are in terms of 100 percent content of active ingredients.

Osborne Named to Head BFG Australian Company

Marcy W. Osborne, jr., has been named general manager of B. F. Goodrich-CSR Chemicals Pty. Ltd., a chemical firm recently established in Australia by B. F. Goodrich Chemical Company of Cleveland, Ohio, and CSR Pty. Ltd., of Sydney.

The firm plans to manufacture vinyl plastic materials in a plant now under construction at Altona near Melbourne. The unit is scheduled to begin production in January. It will obtain raw materials from the petrochemical operations carried on by other companies in the Altona area.

Brill Completes Relocation From New York to Newark

Brill Equipment Company, dealers and rebuilders of chemical and processing equipment, has completed its relocation to 35-65 Jabez Street, Newark, N.J., from its former New York headquarters.

The new location completely integrates warehouses, rebuilding shops, sales and executive offices. The facilities, all on ground level, are located one-half mile from the Newark Airport. The new telephone number is MArket 3-7420.

AZO

For High Consistency in Paints
AZO ZZZ-22

For Medium Consistency in Paints
AZO ZZZ-11

For Low Consistency in Paints
AZO ZZZ-33

AZO acicular zinc oxides are free from detrimental colloidal fines, produce exceptional weathering properties in exterior paints, and are resistant to hard settling during shelf storage. For general use in the production of paints and enamels.

1ST

American Zinc was the first, *and is still the only* producer of acicular lead-free zinc oxides covering a wide range of oil absorptions from high to low *and including the intermediate ranges.*

acicular
ZINC OXIDE
gives paint
Extra durability

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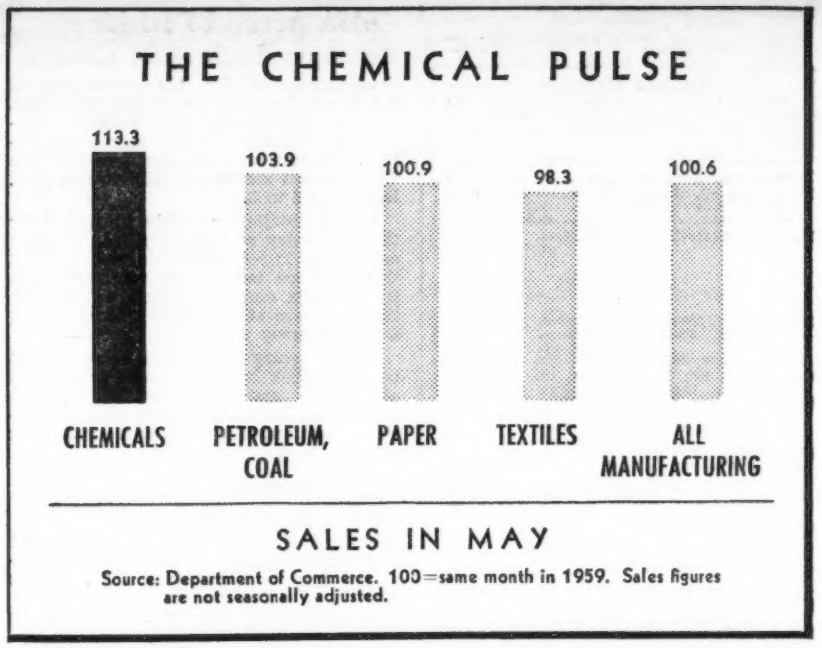

European Competition

In OPD last week there were three articles which, adequately and appropriately conjoined, present a very promisingly fertile field for analytical and conjectural consideration of a most important aspect of the current trends in world trade. One of them had the heading, "Drug Men's O'Seas Hope: Expand, Don't Export." Another told that "Hoechst, German Drug Giant, Enters American Manufacturing-Sales Field." Taken together, those two have a portentous pertinence of relationship to the realistic appraisal of the third, which was headed "GATT Negotiators Hear Cry: The Nation's Tariff Position Should Not Be Bargained Off." The appellation, "Old as McKinley," apparently has a much broader application than that made in the speech of acceptance by the Democratic nominee for the nation's presidency.

The United States is the world's most desirable—and profitable—market. It is the biggest, best-paying arena for commercial competition. It is the "promised land" for all that is capable and possible in private enterprise. There is no need in connection with its development for any participant from another country to have its government's assistance in any of the areas which the US drug industry said that its government could—did it mean should?—act helpfully.

European industry in all lines has got very close to sufficiency, financially, purposefully and venturesomely, to strive effectively to regain the position that it had in world trade—including the United States—prior to World War I. US industries are going to get more and more competition from that continent in all world markets, including their own. Whether that competition will be by way of exporting, licensing or industrial invasion—or some combination of the three—will depend upon various conditions and circumstances. But, it must be expected that a practicable method will be worked out—and pursued with assiduous vigor to its full potentiality of profitability.

Dealing With Cuba

It is not within the realms of possibility to know what will come out where with whatsoever reference to the world status of Cuba as a result of the delvings into and dealings with that country's seizure of the enterprises of foreign investors. What may come out of the question of jurisdiction between the United Nations and the Organization of American States? What will come about under the Monroe Doctrine? Will whatever may be found and decreed by some means and agency mean anything to anybody? Its potentialities in that respect are almost limitless in number and nature.

Among those who have some or other sort or measure of juridical approach to such matters, there is a strong feeling that the seizures should be dealt with by the International Court of Justice. They are puzzled, however, by a question of jurisdiction. That of the world court does not embrace internal matters. Is the seizure of foreign-owned private property within a country an internal matter?

Because the United States has never got properly affiliated with the world court, there is doubt in many circles that that institution would even give any thought to consideration of this country's complaint against the acting head of the Cuban government in the face of expectable counter-charges by the Cuban sugar industry on the closing of the US market for that commodity.

An interesting and potentially important sidelight has been thrown on the world court situation by the proposal of a New York member of the lower house of congress that the 1960 Republican platform include opposition to the so-called "Connally reservation" which, he charges, hamstrings the court by reason of its limitation of US participation in the functioning of that institution. The position of this country as a member of the active world of affairs is in need of more than a little remedial and reformative attention.

Business Abroad

There is every reason to expect that the foreign policy of the federal government will be getting a big, busy and boisterous going-over in the "talkathon" which will be the predominant feature of the multitudinous public proclaimings during the coming three months. Much evidence—in large part sound and convincing—can be adduced in support of the charges that that policy is not what it ought to be in any number of respects. Primarily, that is a more or less partisan political matter; but, it runs into and over all aspects of American world relations.

Foreign policy as a business matter has for some time been getting more and more attention in private and public discussions—but not enough. The "ugly American" is still in business abroad. According to a report, "Overseas Americans," recently issued as a part of the Carnegie educational series, the condition is attributable to "shortsighted education and selection" of business employees and other representatives for posts in subsidiaries abroad, with the consequence that they want to deal only with nationals "who like us."

That, quite obviously, the investigators found, causes the nationals as a whole to resent the attitude that the "highest aspiration for any people should be a desire to be like the Americans." Failing to understand and appreciate the philosophy of another people, the report charges, Americans abroad quite commonly do not realize that what they consider normal can be and is irritating to others.

According to another study on "High-Level Manpower in Overseas Subsidiaries, financed under the industrial relations program of Princeton University, US enterprises are "receiving inefficient, costly executive service in overseas offices because of their refusal to hire nationals." That policy, the report declares, is hurting this country in the cold war.

Remedying of the faults dealt with in the Princeton report calls for adequately proper knowledge of the people being served and reliable guidance in the engaging of representatives capable of meeting the attendant requirements. As has been pointed out here before, the members of US diplomatic staffs in foreign countries can be desirably helpful in the latter need. Getting the essential knowledge of the people is an interminable task which must be properly launched by means of a thorough study by a fully competent executive of the interested company.

The Carnegie findings call for homework conducted under the close supervision of an executive adequately trained in the evaluation of human traits and capabilities. There is an opportunity for basic guidance by way of close acquaintance with and proper study of what is the objective and the attainment by whom and where under the project known as Ecumenical Work Camps in the international interchange of young people. The promoter of that project can be contacted at 475 Riverside Drive, New York.

Washington Talks It Over

US Fertilizer Makers Have Been Taking a Hard Look at FAO's 'Freedom-From-Hunger' Campaign, And in the End Will Probably Decide Not to Participate on an Industry-Wide Basis.

By Ralph L. Cherry
Washington Editor

The fertilizer industry has for some time been taking a hard look at the "Freedom-From-Hunger" campaign sponsored by the Food & Agricultural Organization. It still hasn't decided exactly what it is going to do about joining, but the tendency is towards rejecting it.

A few producers may lend it their support and certain segments of the industry may contribute towards its costs, but participation by American manufacturers on an industry-wide project probably is not to be.

This is no snap judgment on the part of the industry, but is a feeling that has developed as a result of long discussions—some rather pointed at times—that have been held since FAO started the ball rolling for the campaign last April.

Except for a few of the companies particularly interested in the overseas fertilizer market, most of the fertilizer manufacturers seem to question the wisdom of spending money on something which they believe holds more potential for the European producers than for us.

The objectors are saying that the American manufacturers, with their higher costs of production, can't compete with the European suppliers for the markets where the fertilizer is needed (1) because of the high ocean freight rates, and (2) because the buyers are more interested in effecting barter deals than paying out dollars.

Some predict that the dollars spent to defray the cost of the fertilizer may eventually come back to us in the form of bags of fertilizer.

FAO's campaign is being set up to run for two years, with the idea of extending it for another three years. It is largely educational and has this objective: The promotion of efficient use of fertilizers to increase food supplies in deficit areas by helping governments develop national programs of fertilizer use and production. It embraces many demonstration projects and soil testing on a world-wide scale.

The American industry hopes to learn more about the aims and the costs of the program from a meeting that was held in Rome last week. The industry was sufficiently interested to send three representatives to a panel discussion, representing the potash and sulfur segments and the National Plant Food Institute.

OPD'S BOOKSHELF

Thermodynamics

Addition of still another volume to the extensive literature of thermodynamics is more than justified by the author's fresh approach. While there are many books dealing with thermodynamics as related to the chemical industry, PRINCIPLES OF CHEMICAL THERMODYNAMICS* is the first to treat the subject as more than a mere appendage to heat engine theory. Application of thermodynamics to chemical equilibria is here presented in a manner that will bring the reader a very considerable savings in time and study effort. Molecular concepts are employed whenever the purpose of clarity is thereby advanced. Inclusion of a chapter on statistical thermodynamics rounds out the presentation.

*PRINCIPLES OF CHEMICAL THERMODYNAMICS. By Charles E. Reid. 306 pages. Reinhold Publishing Corporation, New York. College Edition $6. Trade Edition $7.50.

French Chemical Producers Fret About Euromart: Will It Be Bitter to Gauls?

—Continued from page 3

from 1958 (the government figures include areas excluded in the UIC calculations, which show chemical exports—on its narrow basis—of $430 million in 1959.)

In the first three months of 1960, chemical exports to the US were $8.1 million, against chemical imports from the US of $15.9 million. French exports to the US for all of last year totaled $25.8 million.

One of the largest single categories of chemical exports in the French government figures is essential oils, which showed exports of $31.4 million last year with $7.3 million going to America. Essential oil and perfumery products in the first quarter of this year also were about one-third of the total exports to the US.

Chemical executives in Paris, who remember vividly the days after World War II, are understandably proud and pleased with their current progress. There is no doubt, however, that their jobs are rapidly becoming more difficult.

The Common Market envisages a final abolition of European internal trade barriers—the second 10 percent cut was taken July 1 and the countries have agreed to end their quota systems against each other before 1962—and the creation of a common external tariff which will generally be lower than the present French duties.

How Euromart Will Affect French Duties

Faced with direct intra-market competition with Germany and Italy, the chemical companies also will have lower barriers against the US, Britain and Japan. Here are a few samples of how Common Market external tariffs will affect the present French duties.

Trichloroethylene: France now has a 25 percent import duty against 15 percent in Germany and 18 percent in Italy with the common external tariff to be 19 percent. **Polyvinyl chloride:** France's duty is now 30 percent against 19 percent for Germany and 25 percent for Italy, with the Common Market duty to be 21 percent. For **alkalies,** the French 30 percent duty will be halved by the Common Market to 15 percent.

With greater competition coming and what may be an exploding market to be tapped, French executives tick off what they believe will be the big problems of the next years:

- Shortage of capital for investment, aggravated by high interest rates and controlled prices.
- Need for "rationalization" of the industry into fewer and larger producing units.
- Requirements for more research and development to fight off American exploitation of the European market by direct investment.
- Development of joint ventures with leading German and American firms.

The moves of American chemical companies directly into Europe is a cause of fairly general worry. Marcel Bo, president of Societe des Usines Chimiques Rhone-Poulenc, tells his shareholders that the epoc of exploiting new products in foreign countries through licensing agreements may soon be ended.

"The idea is getting about that direct exploitation in a foreign land would be the most profitable," he says, adding: "Quite frankly, in our relations with the large industrial nations, and particularly with the United States, the old regimes seems preferable."

Attraction Is to Heavy Consumers

Mr. Bo notes that companies seeking to exploit their developments by direct investment are particularly attracted to countries "which have already attained, thanks to the efforts of local industry, a high level of consumption. All told, the harvest has chances of being better and faster in a garden already well cultivated. Such is the case of the French garden and more generally of the European garden."

Raoul de Vitry, president of Cie. Produits Chimiques et Electrometallurgique Pechiney, cites his firm's current growth rate and success in exports, but calls attention to the heavy investments necessary for an expanding modern chemical industry.

"Our principal foreign competitors," he says, "have been able to face this problem, thanks to interest rates generally lower than in France and a more liberal price system."

As a direct attack on the future financing problems, the large chemical companies have formed Groupement de l'Industrie Chimique de Synthese, which will make capital available to chemical companies as developments require it. Associated with the companies in this new institution are Lazard Freres, investment bankers, and the banks Credit Commercial de France and Credit Lyonnais.

The diffuseness of the French industry has been one of its main weaknesses in the past, with the large number of relatively small companies creating severe financial problems. The top ten firms account for barely 25 percent of the total chemical sales volume and a total of 138 firms in 1958 accounted for 75 percent of the total.

This contrasts with Italy where big Montecatini turns out an estimated 50 percent of the country's total chemical output, Britain where Imperial Chemical Industries, Ltd., accounts for at least one-third and Germany where the three successor companies to the pre-war IG Farben combine take a third of the total.

Mergers are one answer to this problem and the Common Market acceleration has boomed the trend to concentration in each of the six member countries. Another common French solution has been to create jointly-held subsidiary companies.

One recent survey of the whole French economy, for instance, found that the 100 largest firms in the country have a financial interest in more than 900 smaller firms. In some areas, France is developing into a "can't tell the players without a scorecard" economy.

Pechiney and Cie. Saint Gobain, for example, have formed a joint firm—Pechiney-Saint Gobain Chemical Products—to produce and market their chemical items. The metal interests of Pechliney, primarily aluminum, and the glass business of Saint Gobain are not affected.

Rhone-Poulenc more recently organized a joint subsidiary with Ste. LaCellophane, called Cie. Industrielle de Plastique Semi Ouvres, to take over the manufacture and sale of plastic films, extruded sheets and profiles.

Ventures With US, German Firms

Joint ventures are also cropping up more often with American and German firms. Pechiney and the Swiss subsidiary of Dow Chemical Company have formed Ste. Plastichimie to produce polystyrene and "Saran" in France.

A new company in the petrochemical field is California-Atlantique in which Oronite Chemical Company (a subsidiary of Standard Oil Company of California) participates with Petrochimique de l'Atlantique (itself a venture of Ste. Progil, which produces detergent materials) and the Antar group.

Progil, Electrochimie d'Electrometallurgie et des Acieres Electriques d'Ugine and Farbenfabriken Bayer, the big German firm, have formed a company to produce and market isocyanates, polyesters and polyethers for polyurethanes in France.

Etablissements Kuhlmann has joined with Badische Aniline & Soda Fabrik, another German major, to form Ste. Dispersions Plastiques which will make foamed polystyrene products.

Working with the French subsidiary of Esso Standard Oil Company, an affiliate of Standard of New Jersey, Kuhlmann will enter the production of aryl alkyls for detergents from petrochemical feedstocks.

Licensing, of course, is far from dead. Naphtachimie, a jointly-owned petrochemical venture of Pechiney and the French unit of British Petroleum Company, has taken an exclusive polyisobutylene license for all of Europe from Cosden Petroleum Corporation, subsidiary of W. R. Grace & Co.

And the rapidly growing French polyethylene and polypropylene plastics production is all based on licenses from British, German, Italian and American patent holders.

Legal specialists for American firms report, however, that patents can be a very tricky affair in France since there is no government search system and patents are issued "SGDG," without guarantee of the government.

Back of this spate of business and financial wheeling-and-dealing in preparation for tougher days ahead, French capacity and output in the basic chemicals has been surging ahead.

Statistics Tell Part of Story

Statistics from the Union des Industries Chimiques tell a part of the story:

Capacity for olefin derivatives was 151,000 metric tons in 1958, will be 326,000 tons in 1962; production of aromatic hydrocarbon derivatives was 36,000 tons in 1958, will reach 67,000 tons in 1962; carbon black output was 30,000 tons last year, but new facilities now under construction will boost production to 100,000 tons.

Plastics production was 35,000 tons in 1952, over 250,000 tons last year—with polyethylene production, for example, expected to more than double by 1962.

According to Common Market figures, while total petrochemical output for the six countries was rising from 199,000 tons of carbon content in 1955 to 830,000 tons in 1959, French petrochemical output jumped from 37,000 tons to 260,000 tons in the same five years.

But few products tell the most important French chemical development of the decade—perhaps the century—better than sulfur. In 1956, France imported 250,000 tons of sulfur and 500,000 tons of pyrites to meet its needs. Last year, the country produced 425,000 tons of sulfur and next year production will reach 1,200,000 tons.

Thus, France in five years will have gone from sulfur importer to the second largest world producer and exporter behind the US. The reason is the development of the huge natural gas field at Lacq in southwestern France, not far from the resort and gambling center of Biarritz. Lacq next year will be producing 700 million cubic feet of gas a day containing 69 percent methane and 15 percent hydrogen sulfide.

Basic exploitation of the enormous Lacq find is by Ste. Nationale des Petroles d'Aquitaine, a company owned 53 percent by the French government. While the sulfur recovered from the gas is now a valued byproduct, it almost led the French to abandon the project.

Lacq gas as it comes out of the earth is in a class by itself, rising from a depth of about 12,000 feet with a pressure of 9,500 pounds a square inch and a temperature of 300 degrees F.

With the hydrogen sulfide content, conventional steels become brittle and fracture in a few hours and it took two months to seal off the first well, discovered December 19, 1951. The problems were so fierce that American experts advised the company to "forget" the discovery.

By 1956, though, special steels had been developed and work started on sulfur separation and degassing plants. These plants, necessary to purify the gas for fuel use, have put SNPA into the chemical business in a big way, and altered the sulfur economy of the world.

Chemicals Besides Sulfur

In addition to the sulfur, which will be enough by the end of the year to supply all of Western Europe, the company has started production of methylmercaptan and a thiourea unit will be started this year. Besides sulfur and methane, other major byproducts of processing Lacq gas are propane, butane and gasoline.

Around SNPA, the French chemical industry has created five basic petrochemical companies, with major firms sharing in the setups in an almost bewildering complexity. First of these firms is Ste. Aquitainechimie, which is due to start production by the end of the year of ethylene, methanol, ammonia and acetylene, deriving them from feed gases of SNPA.

Among the owners of Aquitainechimie are Office National Industriel de l'Azote,

—Continued on page 36

FRENCH CHEMICALS PRODUCTION

How Output in This Key European Nation Shapes Up

	1958*	1959*	First Quarter 1960*
Sulfuric Acid	1,798,000 tons	1,827,000 tons	482,800 tons
Ammonia, Synthetic	593,000 tons	663,000 tons	176,100 tons
Nitrogenous Fertilizer, Synthetic	483,000 tons	537,000 tons	141,500 tons
Calcium Carbide	346,000 tons	347,000 tons	69,300 tons
Chlorine	245,000 tons	275,000 tons	—
Caustic Soda (100%)	240,000 tons	243,000 tons	71,000 tons
Polyvinyl Chloride	67,800 tons	81,200 tons	19,100 tons
Methanol	34,000 tons	46,400 tons	17,600 tons
Phenol, Synthetic	32,300 tons	42,000 tons	12,100 tons
Phthalic Anhydride	18,600 tons	26,000 tons	—
Formaldehyde	18,300 tons	20,100 tons	6,700 tons
Dyestuffs	13,200 tons	14,000 tons	3,800 tons
Phenol Plastics	11,500 tons	10,700 tons	2,500 tons
Urea-Formaldehyde	4,200 tons	3,800 tons	900 tons

*Totals are in metric tons.

Source: Union des Industries Chimiques for 1958 and 1959 and official publications for the first quarter of 1960.

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Chrome Chemicals • Ammonia
Sodium Bicarbonate • Muriatic Acid • Solvents
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Heavy Chemicals

Midsummer doldrums, made suddenly virulent by a rising thermometer and higher humidity, have seeped into every cranny of the market, dotting the map of industry with plant shut-downs, throttling materials movement of those remaining open, or at least imparting a tar-like note of sluggishness into the pipelines, and thereby turning the attention of sales executives to the bright promise of the month ahead when a Fall upturn, starting as early as late summer, is expected to re-open those plants on a full-shift basis, re-vitalize the pipe-lines and have the wheels of industry humming as never before.

A brisk upturn, coming as a surprise to many, is indicated in this week's Census Bureau report on heavy chemical output during the month of May. Production totals up from April were reported for aluminum sulfate, carbon dioxide, chlorine, phosphoric acid, caustic soda, sulfuric acid and many other keystone chemicals.

Rayon shipments in the January to June period are reported by the Textile Economics Bureau at 376.2 million pounds, down 16 percent from the 449 million pounds shipped in the comparable period of last year. The June total was 23.5 million pounds, down 17 percent from last June. This was not good news for caustic soda producers, 15 percent of whose output goes into production of rayon.

The American Paper and Pulp Association reported production for the week ended July 16, at 86.3 perecent of theoretical capacity as compared with the revised figure of 60.1 percent for the previous week and 90.3 percent for the corresponding week of last year.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 24, 1959
106.86	106.86	106.87	104.84

For Current Prices See Page 9

Acids

Boric—Beset by summer doldrums, business volume is nevertheless running a little stronger than at the same time last year, trade sources report.

Chromic—Sales are seasonally slower owing to seasonal slackness in new orders coming out of Detroit. Supplies are adequate, prices unchanged.

Hydrochloric—The lower output rate in steel, plant shutdowns by chemical companies, and the normal mid-summer fatigue of industry are some of the factors accounting for slack business volume in today's hydrochloric acid market.

Hydrofluoric — Despite aluminum's unflagging production pace, hydrofluoric acid is beginning to bow under the weight of seasonal business doldrums.

Sulfuric—American Iron & Steel Institute estimates last week's steel output at 1,556,000 tons, or 54.6 percent of capacity, which, if correct, marks a significant upturn over the previous week's actual total of 1,476,000 tons, or 51.8 percent of capacity.

For perspective, the Institute cites production a month ago at 1,739,000 tons; and one year ago, when the strike began, at 365,000 tons for the week.

Bases and Salts

Calcium Chloride—Since this has been neither the hottest nor the driest summer we've had, calcium chloride sales were comparatively slack through June and the current month. The situation is expected to reverse itself in the western states now that temperatures are rising. But last week's hot spell in the northeast area was accompanied by enough humidity to preclude the need for dust control.

Chlorine—Many producers took advantage of the July 4 week-end to shut down for their regular vacation period, and this has made the July doldrums more conspicuous than usual. But based on new orders that have since started to pour into chlorine sales offices, the balance of July and the month of August should restore the market to its earlier stride, which all producers describe as having been faster than last year's pace.

Caustic Soda—Pricewise the market has experienced no variations this year. Business volume has been consistently better with exception of the July 4 week-end which brought a number of vacation shutdowns in consuming industries. Supply is amply available, sources in the trade report.

Soda-Ash—There has been no move to raise prices since an unsuccessful attempt was made at the close of the first quarter. As a result, current prices are hoary with age, having endured several years against the upthrust of costs all along the production and marketing route. But increased business volume and more efficient production methods have done much to protect profit margins, disinterested observers feel.

Nonferrous Metals

Aluminum—Primary production in the US in April totaled 168,596 tons, Mines Bureau reports, down about 2,000 tons from the March level.

April shipments of 144,469 tons of primary metal from producers' plants were 18,261 tons below the monthly average during the first quarter and 38,461 tons below the level of shipments reported for April.

As a result of the excess of production over shipments, Mines notes, stocks at producers' plants increased to 139,000 tons, the highest level since March 1959.

Net export balance of 8,900 tons of crude and semi-fabricated metal in March was a decline of 20,000 tons from February, the government agency reports.

Copper—World primary production of crude copper in June totaled 305,565 tons, up a shade from 301,070 tons the previous month, the Copper Institute reports.

Secondary output totaled 16,786 tons,

Inorganic Chemicals Output: May

The following figures compiled by the Bureau of Census indicate production of industrially important inorganic chemicals, in tons:

	May	April
Aluminum chloride, anhyd	2,178	2,141
liq., cryst.	2,339	2,256
Aluminum sulfate, coml.	74,661	71,861
iron-free	4,585	3,833
Calcium carbide	100,457	98,631
Carbon dioxide, liq., gas.	40,604	37,211
solid	43,791	36,052
Chlorine gas	395,407	383,894
Hydrochloric acid	93,517	94,569
Hydrofluoric acid	10,398	9,820
Hydrogen peroxide	2,353	2,079
Nitric acid	265,080	275,457
Phosphoric acid	189,947	*182,991
Phosphorus, elemental	36,353	35,212
Phosphorus oxychloride	2,146	2,028
Phosphorus trichloride	2,129	1,704
Potash, caustic, liq.	9,240	8,961
Solid	1,952	1,781
Soda ash, syn., light	199,457	206,250
dense	172,986	168,875
Soda ash, natural	†	66,855
Soda, caustic, liquid	416,695	407,744
dry	38,545	43,420
Sodium bichromate and chromate	11,214	11,111
Sodium chlorate	7,521	7,954
Sodium hydrosulfite	2,180	2,092
Sodium metal	9,779	9,388
Sodium phosphate, tribasic	4,375	4,644
Meta	5,174	5,532
Tetra	7,181	6,728
Acid pyro	1,395	1,492
Sodium silicate	46,274	50,263
Sodium sulfate, anhyd.	25,917	24,147
Glaubers salt	8,710	8,072
Salt cake, crude	61,894	61,837
Sulfuric acid, gross	1,611,928	*1,556,371

* Revised.

† Not available.

Heavy Chemicals

as against 17,248 the month before. Refined production was 329,724 tons as compared with 323,167.

Deliveries, according to the Institute's figures, declined sharply, totaling 304,300 tons, as against the previous month's 321,783.

In the US, primary output of crude amounted to 98,344 tons, down from 104,272 the previous month. Secondary production was about unchanged at 13,585 tons—as against 13,857. Refined output rose sharply to 161,073 tons from 147,050. Deliveries experienced a slight decline to 106,207 tons from 108,266.

A midyear review and outlook report from Business & Defense Services Administration forecasts a 5 percent decline this year in shipments of copper-base mill and foundry products.

Magnesium—Magnesium consumption in 1960 should approximate 51,000 tons, including recovery from scrap, Business & Defense Services Administration predicted last week.

Shipments of primary magnesium in the first four months of 1960 increased 18 percent over that period of 1959, while primary production was up 84 percent.

Total shipments of mill products and castings in the four-month period decreased 8 percent as compared with the same period in 1959, BDSA notes. Shipments of mill products were down about 3 percent and castings 12 percent.

Mercury—Business was slow to moderate and price unchanged at a range of $211 to $214 a flask, large lots, immediate shipment.

Nickel—Consumption of nickel in the US in the first quarter totaled 69.7 million pounds, Business & Defense Services reports. This was an increase of 17 percent over the corresponding quarter of 1959 and 64 percent over the like '58 period.

The lower steel output rate in the second quarter was expected to reduce the consumption of nickel in that period. BDSA expects an upturn to commence in August.

The estimated consumption figure of 255 million pounds made for 1960 by BDSA at the end of 1959 is still considered to be realistic, despite steel's continuing downturn.

Silver—In a report on the silver market in 1959, the American Bureau of Metal Statistics notes that demand in the US maintained steady strength throughout the year with little seasonal fluctuations.

Free World consumption of silver in 1959 is estimated by the bureau at about 296 million ounces, an increase of 18 percent over 1958.

In the current market, the price is unchanged at a long-standing level of 91⅜c. a tory ounce, spot.

Tin—Listings gained 2c per lb. closing at $1.05 per lb., spot, Friday. This marks the highest tin quotation in the last nine months.

Allied Picks Product Chiefs In General Chemical Division

Allied Chemical Corporation has appointed William E. Houghton and James W. Kelley as sales manager for two groups of basic industrial chemicals in the General Chemicals Division.

Mr. Houghton, who has been with the division for twenty-seven years, will be responsible for sales of aluminum sulfate, aluminum chloride and aluminum nitrate solutions, ammonium and potash "alum," a variety of sodium compounds and phosphoric acid.

Mr. Kelley, with the division thirteen years, will take over sales of hydrofluoric, nitric and muriatic acids, inorganic fluorine chemicals, and related materials.

Chemical Specialty Exports

—Continued from page 4

posed on foreign chemical items coming into the US are far under those which US producers must pay elsewhere.

Some tax concessions to American exporters were suggested as another possible approach to strengthening business.

Patent infringements in foreign countries are hurting the American producer, it was also pointed out.

Walter A. Edwards, deputy assistant Secretary of Commerce, told the group, in opening the meeting, that foreign competition is giving American business "the economic fight of our lives," and urged the chemical specialty makers to keep a close check on developments in the export field.

He asked that the industry report promptly any new problems to the chemical and rubber division of the Business & Defense Services Administration so that, when trade negotiations are carried on with other countries, this government will be fully informed on the precise nature of the difficulties which US industry faces.

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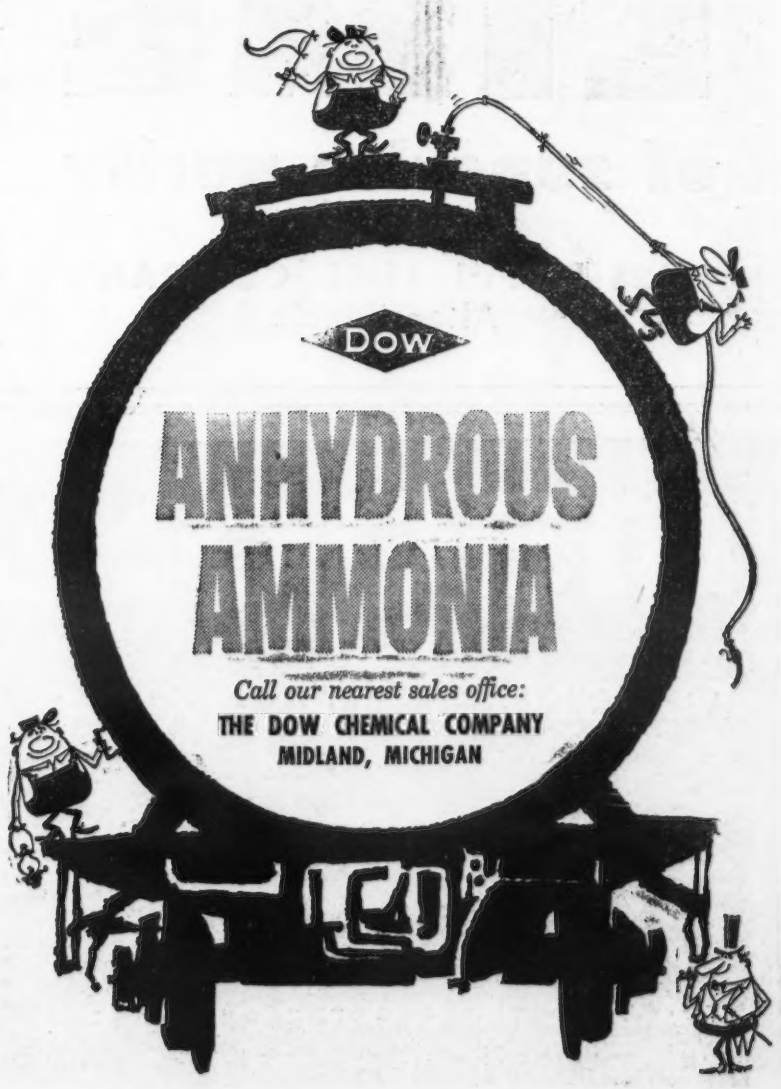

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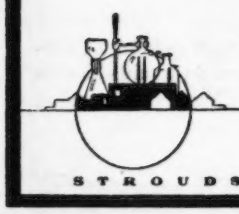

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OPD Reports From Europe

French Chemical Producers Fretting

—*Continued from page 33*

another government company in the nitrogen fertilizer field, Pechiney, Saint Gobain and Ste. Pierrefitte, also a fertilizer firm.

Four companies will take the Aquitainechimie basic gases to produce a variety of products. Methanolacq, owned by Aquitainechimie and Kuhlmann, will produce methanol derivatives. Acetalacq—owned by Rhone-Poulenc, Pechiney, Saint Gobain and Usines de Melle, a company specializing in chemical processes—will produce acetaldehyde and its derivatives from acetylene provided by Aquitainechimie.

Azolacq, an ONIA venture, will take ammonia from Aquitainechimie to produce nitrogen fertilizers. Finally Vinylacq, owned by Pechiney, Saint Gobain and Banque de Paris et des Pays Bays, will produce vinyl chloride from acetylene supplied by Aquitainechimie.

While many of the details of these projects have not been made public, it is estimated that by the end of this year daily production at Lacq will include 75 to 100 tons of acetylene, 200 to 250 tons of ammonia and 100 tons of methanol. End products in time will be at least 70 to 80 tons of vinyl chloride, 100 tons of acetaldehyde and 30 to 50 tons of butanol among other items.

This complex of jointly-owned enterprises, partly an outgrowth of the inability of any single firm to undertake such large projects and continue its other developments, does not exhaust the possibilities of the Lacq raw materials.

Ste. Ethylene-Plastique, jointly owned by Pechiney and Ste. Huiles, Goudrons et Derives, has disclosed it will build a high-pressure conventional polyethylene plant at Lacq. The plant's initial capacity of 20,000 tons is scheduled to start up in 1962, and plans call for ultimate capacity to rise to 30,000 tons.

PVC Fastest Grower in Fifties

The most rapidly growing plastic in France during the 1950's has been polyvinyl chloride, accounting for an estimated one-third of the total 250,000 tons of plastic output in 1959.

Kuhlmann, Pechiney, Saint Gobain, Rhone-Poulenc and a unit of Solvay et Cie. are the big PVC producers. But polyethylene is already well on its way to catch up to PVC and will skyrocket in the next few years. Polyethylene production doubled in 1959, should double again this year and will rise further in 1961 and 1962.

Ethylene-Plastique started its production in 1954 at Mazingarbe in the north of France with a license from Imperial Chemical Industries. Mazingarbe is one of the two centers of hydrocarbon chemical production based on coal and coke raw materials, the other being at Carling in Lorraine.

The area supplies French concerns with ethylene, benzene, methanol, hydrocyanic acid and their derivatives. Ethylene-Plastique's production in 1954 amounted to 1,860 tons. Production at this unit has increased steadily, totaling 9,660 tons last year—with an output of 12,000 tons estimated for 1960.

In 1956, however, Ethylene-Plastique created a second company—Ethylene-Plastique Normandie—with Air Liquide joining the ownership to produce conventional polyethylene based on supplies of ethylene from Esso's big refinery at Port Jerome at the mouth of the Seine River.

Production at this plant started up in July of last year and by the end of 1959 Ethylene-Plastique Normandie had turned out 6,989 tons of plastic. The full year's production in 1960 is expected to hit 30,000 tons, with output of 45,000 tons predicted for 1961.

French producers of conventional polyethylene are confident of the future, since manufacturing costs have fallen with improved techniques and larger scale output.

In addition to the growth of the domestic French market for conventional polyethylene, France expects to be able to export its excess production, as its prices are lower than those of the German producers, the main European competition. There is also a belief that the Italian demand for polyethylene is not being met by domestic output there and home production hasn't started yet in Belgium.

Makers of Low-Pressure Polyethylene

There are three French producers of low-pressure polyethylene. Ste. Normandie de Matieres Plastique, with a plant in the same area as the Ethylene-Plastique Normandie unit, expects to produce 2,500 tons of low-pressure plastic in 1960 and 6,000 tons in 1962 under its Ziegler license. The company also has plans to produce polypropylene, with initial production of 4,000 tons in 1962 and an ultimate production of 7,000 tons a year.

Naphtachimie, the Pechiney and British Petroleum concern, also has a Ziegler license and produced 1,000 tons of low-pressure polyethylene last year at Lavera, near Marseilles. Production this year is expected to be between 2,000 and 3,000 tons. This company also has a license for polypropylene production.

The third low-pressure producer is Manolene, formed in 1956 by Rhone-Poulenc, Kuhlmann and Cie. Francais de Raffinage (a subsidiary of Cie. Francaise des Petroles, a big petroleum company). With current production at about 1,500 tons a year, Manolene's output is expected to reach 6,000 tons a year. This firm holds a license from Phillips Petroleum Company.

Problems of French Producers

The major problems of the low-pressure producers in France are the entrenched position of German suppliers in Europe and the alleged practice of American producers, with large excess capacity, of "submerging" markets with low-priced material.

The French producers hope that domestic demand in Europe—and perhaps more importantly in the US—will have increased enough by next year to make the export market healthier. Actual capacity of French molders to take low-pressure polyethylene has been estimated at about 3,000 tons a year.

One complicating factor in the export field for low-pressure polyethylene is the restrictions placed on process licenses. It has been reported, for instance, that Manolene is barred by Phillips from exporting to any country in which a domestic company has a license. Phillips licenses are held by firms in Great Britain, Germany, Italy, Brazil and Japan in addition to France.

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GATT Skirmish: Producers Rest Case

—Continued from page 5

ly nil. Now imports exceed exports of animal glue.

As more foreign producers become aware of the duty advantage, all imports of animal glue will be classified as technical gelatin to circumvent the higher rate of duty applicable to animal glue, he contended.

His arguments were supported by W. G. Bangert of Stauffer Chemical Company, New York, who warned that any reduction in tariff protection will cause or threaten serious injury to continued domestic production of animal glue by Stauffer. He said the present duties on glue have not prevented the import of substantial and increasing quantities of animal glue.

Perchloroethylene Wrongly Classified

C. B. Shepard of E. I. duPont de Nemours & Co., Wilmington, Del., declared that perchloroethylene has been erroneously classified by the customs court as being in the same tariff paragraph as polishes and similar articles. The result, he said, is that Europeans are expanding their plants for the purpose of increasing exports to the US.

This trend in imports presents a real threat to the American industry which, he felt, must operate at full capacity in order to earn a return on its investment.

Chairman Joseph E. Talbot of the Tariff Commission, however, explained that the commission has no authority to change the classification of a product and this can only be done by court appeal or by an act of congress.

John K. Westberg of the International Minerals & Chemical Corporation, Skokie, Ill., protested any duty reductions on dicalcium phosphate and defluorinated feed grade phosphate.

He said that the impact of imports is felt, not so much in the matter of tons, as in the effect on prices. Even small quantities of imports cause prices to be unsettled at the ports of entry and have a chain reaction on prices in the interior of the country, he maintained.

He also expressed the belief that a large quantity of dicalcium phosphate enters the United States free of duty although it is supposed to pay a tariff of 10 percent ad valorem. This is because it is not identified as phosphates, but is classified as a fertilizer entitled a free entry.

Duty Cuts on Licorice

Proposed duty reductions on licorice were supported by F. A. Martin of the William E. Martin & Sons Company, Brooklyn, N. Y., but opposed by Raymond T. Goodwin of J. S. Young Company, Baltimore, Md., and L. A. Geddes of MacAndrews & Forbes Company, Camden, N. J.

William H. Brown of American Viscose Corporation and Ketchikan Pulp Company, Philadelphia, in challenging any reduction in tariffs on cellophane, said that if imports of this product increase and are sold below present competitive domestic prices, the effect will be to lower the industry's whole price level and place the industry—now earning an inadequate return—in a completely uneconomic position.

Small quantities of cellophane have recently entered the United States from abroad and sold 3 cents to 4 cents under domestic prices, he said, and indications are these imports will increase as foreign production expands. Cellophane is now being produced in twenty-one countries.

Richard Serviss of Eagle-Picher Company, Cincinnati, Ohio, argued for continuance of the present duties on germanium dioxide on the grounds that a domestic supply is extremely important to national defense, and germanium metal is produced in significant quantities only in the Belgian Congo and the US.

Harold L. Porter and W. H. Stark of Standard Ultramarine & Color Company, Huntington, W. Va.—supported by two officials from the Oil, Chemical & Atomic Workers International Union — warned against any further reductions in ultramarine blue and barium sulfate (see separate story on page 5).

While there are no imports of citric acid to speak of, Howard Roderick, president of Miles Chemical Company, Elkhart, Ind., feared that a lowering of the duty would bring about imports that would do irreparable injury to the domestic industry. Miles entered into this production in 1952 after Chas. Pfizer & Co., New York, had been the sole producer since 1920.

Mr. Roderick said that Miles Chemical got into citric acid production under a certificate of necessity issued by the government during the Korean War. It now has a new plant that came on stream in January, enabling it to supply 20 percent of the American market.

Titanuim Dioxide Cuts Protested

Sharp protests were made against duty reductions on titanium dioxide by both the National Lead Company, New York, and duPont.

W. Harcourt Woods, testifying for the titanium division of National Lead, stated that the present domestic industry has a productive capacity greater than domestic consumption. The present differential in labor costs between domestic labor and foreign labor, he went on, is greater than the combined costs of the present tariff and freight.

Imports of titanium dioxide have more than quadrupled in 1959 as against 1958 under the present tariff structure, he said, and foreign production now in being and coming into being in the immediate future will seek the US market.

Edwin A. Gee of du Pont reported that the domestic industry's planned capacity will be about 660,000 tons by 1962, up about 55,000 tons from the present level.

He contended that it is doubtful whether this installed capacity will be consumed in the next four years, which makes the threat of increased imports of even greater concern to the industry.

Imports have been entering the US 2½ cents under the prevailing market, with some unconfirmed reports of prices 3½ cents under, he reported. The health of the American titanium industry is of vital concern to the military, he added.

Printing Ink Imports Rising

Herbert B. Livesey of the National Association of Printing Ink Makers indicated that printing ink imports have risen from 17,000 pounds in 1949 to 2,388,000 pounds in ten years. What's more, he said, they threaten to go even higher if the duties are reduced.

A. E. Staley, of A. E. Staley Manufacturing Company, Decatur, Ill., opposing any reductions in grain starches, said that the US corn starch industry has been "effectively excluded" from most foreign markets and now is rapidly losing its domestic market to imports.

He pointed to tropical starches—tapioca and sago—as the most serious danger to the American industry because "they are allowed to pour into the United States duty-free in uncontrolled amounts."

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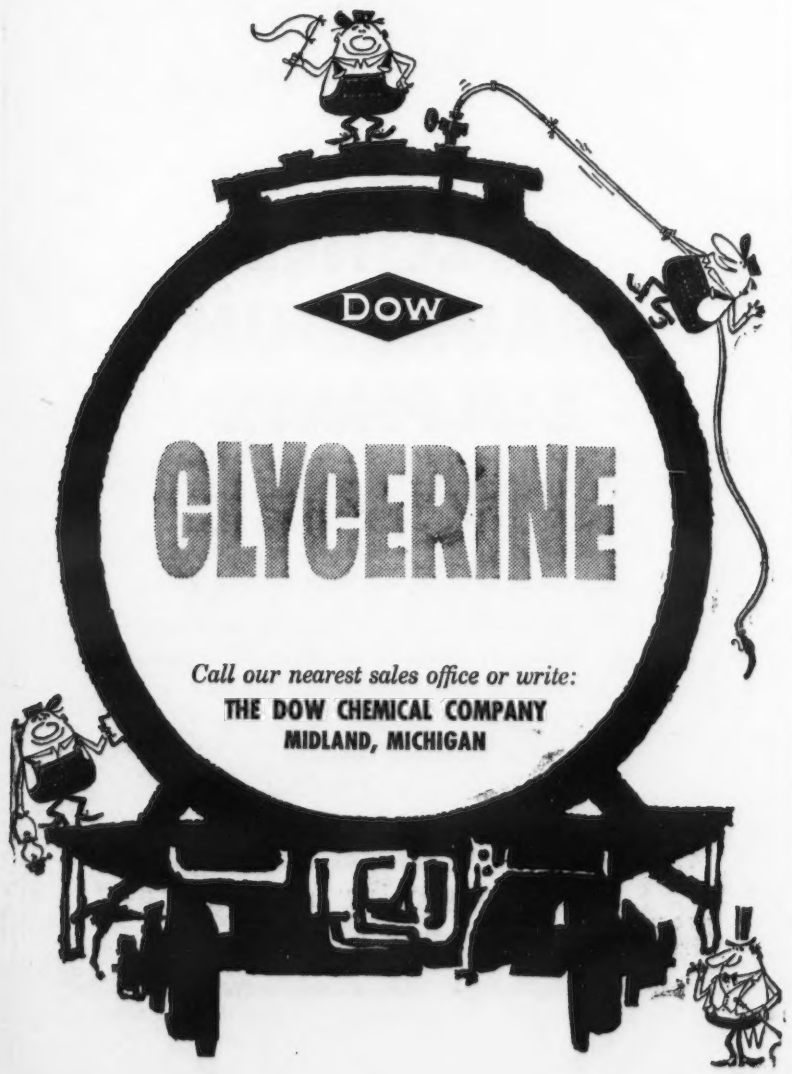


Aliphatic Organics

The organic chemicals business, like business generally, could be better. In fact, it would be nice if it were living up to first-of-the-year expectations. This isn't to imply, however, that a "mild" recession—seemingly alluded to with greater frequency over gin-'n-tonics these warm summer days—has set in or that a big, nasty recession lurks 'round the corner. For despite some gloomy forebodings, such as the decline in employment, the low rate of steel production, and the noticeable lack of optimism flowing out of car headquarters, product managers throughout diverse areas of the organic chemicals market indicate that sales generally are running at a good level, in marked contrast to the traditionally slow mid-July pace.

Although reports naturally vary with the individual firm and its product line, most of the trade contacted by OPD last week indicated that sales this month probably will top the '59 record. And while one source disagrees, he concedes that July a year ago was peculiarly good as far as his end of the business was concerned. Further, he admits that, based on sales performance to date, July more than likely will show a considerable improvement over the same month in earlier years.

Noted by a major producer of solvents is that sales this month have not dropped as far as usual below the June level. He says that this could be attributed to fewer plant shutdowns among consuming industries. Personally, however, he doubts this is the case. Based on an informal survey, he finds that as many plants are closing down this year as in past summers. Hence, he concludes that demand is actually better.

Reports on business during the first half of '60 are beginning to come in, bringing word that sales were up, profits down, a disease that afflicted even the giant of the chemical world. Increasing competition is usually cited. Figuring in this, some of the trade say, is the "expansion explosion." With productive capacities all too frequently way in advance of demand, operating costs mount, and the need to unload material at competitive prices becomes increasingly more acute.

World consumption of natural and synthetic rubber totaled 1,257,500 tons for the first four months of 1960, compared with 1,195,000 during the same period in 1959, according to estimates of the Secretariat of the International Rubber Study Group. Consumption in the US increased 2.8 percent from 543,040 tons to 557,928 tons, while consumption in foreign countries, excluding the USSR and communist China, increased 12.5 percent, from 536,460 to 603,572 tons.

For the first four months of '60, excluding production and consumption from iron curtain countries, world synthetic rubber production was estimated at 647,500 tons and consumption 582,500 tons; for the same period in '59, the figures were 502,500 and 505,000 tons, respectively.

Acetic Acid—Exports of acetic acid in May totaled 51,958 pounds and were valued, according to the Census bureau, at $10,516. Major buyer was Cuba (45,600 pounds at $5,613). Next was Canada (2,860 pounds at $2,986).

The same month, exports of acetic anhydride—to which an estimated 60 percent of acetic acid output is funneled—were 5,390 pounds, valued at $970. Brazil took all of this.

Acetone—With many of the people in the trade calling the recent price reduction a foolish move, it's not unlikely that a price advance, reestablishing the former schedule, will be announced for October 1. In the interim, sellers will have to be content both with competition and a slim profit margin.

The one-half cent per pound reduction was thought to reflect the greater availability of cumene acetone, resulting from stepped-up production of phenol, and the debut of a new producer, a one-time major open market buyer of the solvent. Real insiders, however, say these factors in themselves wouldn't have pressured the price drop, but decline to go too deeply into details.

Acrylic Acid—Several developments have been reported in this market over the past few weeks, including a significant price reduction for glacial acylic acid. To tie them all together . . .

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last Month	July 24, 1959
132.08	132.08	132.19	130.55

For Current Prices See Page 9

Following the debut of a new producer of technical acrylic, and the announcement that another firm is expected to be in the business by the end of '60, the leading supplier of glacial acrylic acid dropped the carload price of the chemical from 57c. a pound to 42½c. a pound, on a delivered basis. Additionally, it included a tankcar listing of 40c. a pound in its new schedule, which was retroactive to July 5.

Developments 1 and 3 were obviously related. Development 2 was probably coincidental though it also reflects the broadening market and uses of acrylic acid and acrylic esters.

In telling its plans, the producer-to-be said it will manufacture a 98-percent-pure glacial acrylic acid, via a process it had developed, and would sell this product on the open market in addition to using it captively in the manufacture of higher acrylates. These—2-ethylhexyl acrylate and butyl acrylate—also figure in the firm's multimillion dollar expansion program.

The firm has produced methyl and ethyl acrylates since 1957; later, modified these facilities to accommodate manufacture of the higher acrylates. With the completion of its current expansion, its overall acrylate capacity will be doubled.

Although glacial acrylic acid can be used both for polymerization and esterification, the new producer of technical acrylic acid is offering a distinct grade for each specific function. Varying in inhibitor content, the two grades of the acid also differ in price. The polymerization grade is available at 40c. a pound in tankcar quantities, the esterification at 39c. a pound. Full scale production of both materials is under way.

The glacial acrylic acid still has an edge on its competition since it's sold on a delivered, as opposed to an f.o.b. shipping point, basis.

Carbon Tetrachloride—Construction of new carbon tetrachloride facilities are expected to begin soon and continue for five or ten years, according to a recently reported market study.

Basis for this prediction is the steadily increasing consumption of carbon tet in any number of end-uses, including aerosol propellants and methylene chloride and chloroform, for which the most economical method of production is said to be the direct chlorination of methane.

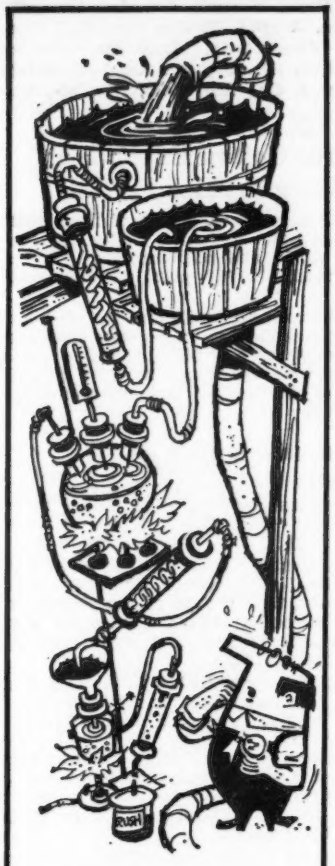
Existing facilities for the production of carbon tet by the chlorination of methane, the study indicated, will probably be converted to the manufacture of the lower chlorinated methanes. And as this is done, carbon tet productive capacity thus converted will have to be replaced by new plants.

About 65 percent of carbon tet output is used in the manufacture of chlorofluorhydrocarbons—which are consumed, in turn, in refrigerants and propellants—the study said. Other applications, all small in comparison, are as a solvent in industrial cleaning, grain fumigation, fire extinguishing and spotting and cleaning.

Predicated on continued growth of the market, carbon tet output is expected to hit 500 million pounds by 1970. Current annual production is in the vicinity of 350 million pounds.

Cellulose Acetate—Demand for chemical wood pulp, which, like cotton linters, is a raw material for the manufacture of cellulose acetate, is reportedly depressed. One of the negative factors is rayon output which in the first half of the year dropped approximately 16 percent below the comparable period in '59.

Coming on top of overcapacity, poor demand has induced producers of chemical pulp to take the ax to prices. Especial-



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Aliphatic Organics

ly deep cuts have been made in viscose grades which are now bringing about $180 a ton, down approximately $10 since the beginning of the year.

Rayon is the largest single outlet for chemical wood pulp, accounting for about 25 percent of total consumption. In the last year, rayon fabric prices have declined about 5 percent, tire cord about 13 percent.

Dimethyl Sulfide—Dimethyl sulfide is currently quoted at 15c. a pound in tankcars; at 18c. a pound in carloads of 375-lb. drums; at 18½c. a pound in smaller lots of 375-lb. drums; and at 24c. a gallon in 5 to 45 gallon quantities in 5-gal. drums.

Drum carload and less carload prices were advanced 1½ cents a pound on March 2. Other than these changes, however, the schedule has remained intact since mid-1957.

Prices are f.o.b. plant. Drums are included in the purchase price and nonreturnable.

Dimethyl sulfide weighs 7 lb./gallon. A drum weighs approximately 441 lb. gross, 375 lb. net, the manufacturer states.

Gluconic Acid—Prices were advanced July 5. Schedule set up at the time lists the chemical at 17c. a pound in tankcars, 20c. a pound in car-or truckloads, and at 21c. a pound in 10,000-pound lots, f.o.b. plant with freight prepaid to destination in the continental US by carrier of producer's choice. (Prices west of Denver are uniformly 1½ cents a pound higher.)

Today's schedule is the same as that quoted from 1957 to mid-1959. Dropped at that time in a bid to broaden the market, prices were recently boosted to compensate for higher operating costs, a spokesman for the film said.

Methylamines—A leading chemical firm has more than doubled its methylamines capacity at its Terre Haute, Ind., plant, the best plant in the industry, according to a biased, and properly so, spokesman for the company.

Mostly a case of process improvements, the expansion brings the firm's methylamines capacity to between 15-20 million pounds annually.

Demand for methylamines, dimethylamine especially, is said to be better than normal for this time of year, traditionally slow due to plant shutdowns throughout consuming industries.

Molasses—Markets for feeding cane molasses showed slight advances at New Orleans and at most Midwest quoting points during the week ended July 20. East coast and west coast markets held steady. At New Orleans, the price range continued the same as the week before but the "mostly" price went up ¼c. per gallon to 9c. The continued uncertain situation in Cuba was reported to have caused some slight strength in the market. Forward offerings were held to a minimum in some areas because of a tight supply.

Hawaiian cane blackstrap production in June totaled 7,748,352 gallons. This was 2 million gallons above May output and more than 1 million above June of '59 (6,561,270).

Production for the first six mouths of the year, at 25,447,707 gallons, however, was considerably lower than output during the comparable period a year ago (28,860,525 gallons).

Sucrose—With the raw sugar market strengthening day to day, it's quite likely

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Aliphatic Organics

that refiners will soon hike their prices commensurately. In fact, suppliers in the territory Chicago-West and in the Southwest posted higher schedules July 18. So far, however, Eastern refinery prices are unchanged at 9.4c. a pound, the level established June 16, but according to reliable sources, continued stability is in doubt.

Based on trade accounts of what one source calls a "terribly confused situation," as well as reports appearing in other journals, there's plenty of sugar to be had in world markets. So while US refiners have just enough on hand to take care of needs through mid-August, no one need fear a shortage, provided, of course, the government is able to realign supply sources quickly and effectively to compensate for the 760,000 tons whacked off Cuba's raw sugar quota.

Since Ike's action—when Castro learned the hard way that revenge can be sweet—the price of raw sugar has risen to $6.55 a hundred pounds from $6.25 the day prior to the announcement of the cut.

Trade sources feel that the government will probably allow US refiners to import raw sugar directly from foreign suppliers, as is normally the case, once import quotas are set up. There's always an outside chance, of course, that the US may purchase its raw sugar through the Credit Commodity Corporation in which case Uncle Sam would take over as grocer.

Indications are that should Castro continue to appropriate US properties, Congress will probably extend the president's new quota-cutting powers from next March 31 through 1961.

If Cuba is out next year reportedly, present sugar suppliers alone couldn't meet US 1961 needs. Big potential suppliers like Brazil and Australia will need advance assurances by December to justify big production boosts, government specialists say.

Brazil wants to barter its sugar for US wheat. Trade people say there's nothing wrong with this scheme.

Barlow Chemical Expands Into Quaternary Compounds

Barlow Chemical Corporation, Ossining, N.Y., producer of intermediates for quaternaries, has just completed installation of facilities to turn out quaternary ammonium compounds in that city. The materials will be marketed under the "Barquat" trade-name.

A national network of distributors established by Barlow includes: George Mann & Co., Providence, R.I.; Callahan Chemical Company, Camden, N.J.; Ives & Co, Los Angeles; Moreland Chemical Company, Spartanburg, S.C.; Amica-Burnett Chemical Company, Jacksonville, Fla.; Great Western Chemical Company, Seattle, Wash.; Textile Chemical Company, Reading, Pa.; Wittichen Chemical Company, Birmingham, Ala.; and Joseph Turner & Co., Ridgefield, N.J., and Chicago, Ill.

Arthur Colton Expanding Its Drug Service Facilities

A 30 percent expansion of floor space is being made by Arthur Colton Company at its filling and pharmaceutical machinery manufacturing plant in Mancelona, Mich.

The expansion will provide additional machine assembly and machine shop area for manufacture of filling machines, tablet presses and equipment used for production of tablets by the pharmaceutical industry.

Plastics Wrap Up

—*Continued from page 4*

through an ambient heat tunnel which shrunk the film into a "tight, attractive overwrap."

Mr. Murphy, who also serves as vice-president of Reynolds Aluminum Sales Company, took charge of the firm's plastic film packaging sales recently when the plastics department was given full divisional status.

Statistics compiled by the Reynolds market research department indicate that about 64 percent of all flexible film sold is used for packaging. In the Reynolds booth, packages on display included overwraps for phonograph records, bacon and frankfurters — plus apples in a pressed board tray and baked goods in an aluminum foil tray.

Also on display was a beer case using PVC as a protective lamination to show the film's toughness and abrasion-resistance.

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Data Offered

Urethane coatings for wood is the subject of a new four-page brochure issued by B. B. Chemical Company. Copies of "Bostik Technical Bulletin No. 3-60" are available without charge from the firm at Cambridge, Mass.

Stabilization of **liquid fertilizers** is the subject of a new technical data sheet published by Minerals & Chemicals Corporation of America. Copies of Data Sheet 959 are available without cost from the company at Essex Turnpike, Menlo Park, N. J. The booklet describes use of "Attagel 30," a colloidal grade of "Attapulgite," as an agent for the suspension of plant nutrients in water.

Applications of "Tenamene 3" (2,6-di-tert-butyl-p-cresol) as an industrial antioxidant are discussed in a new sixteen-page brochure available from Eastman Chemical Products, Inc., at Kingsport, Tenn. Performance charts and graphs illustrate the functioning of "Tenamene 3" as an antioxidant for such materials as lubricatings oils, turbine oil, paraffin wax, motor and aviation gasolines, rubber, paints, elastomers, polyethylene and insecticides.

Cayton, Inc., has published a four-page technical bulletin covering uses of **algin.** Copies of "Emulsifying, Thickening, Suspending and Stabilizing with Algin" are available without charge from the company at 75 Terminal Avenue, Clark, N. J. Featured is a table comparing the effectiveness of various algin products recommended for specific properties plus a table describing algin products used in the food industry.

A bulletin giving full information on "Flotrol C," a new **latex binder** for paper coatings, has been issued by the Dewey & Almy Chemical Division of W. R. Grace & Co., Cambridge 40, Mass. Bulletin 75-12 includes tables to show performance of "Flotrol C" on coating machines and graphs which illustrate its ability to allow high solids formulation without increases in viscosity, the company says.

A sixteen-page brochure on **calcium carbide** and its derivative, **acetylene,** has been published by National Carbide Company, a division of Air Reduction Company. Copies are available from the company at 150 East 42nd Street, New York 17. A simplified flow chart of carbide manufacture is included, along with photographs of operations at the company's Calvert City, Ky., plant. A detailed discussion of production rounds out the presentation.

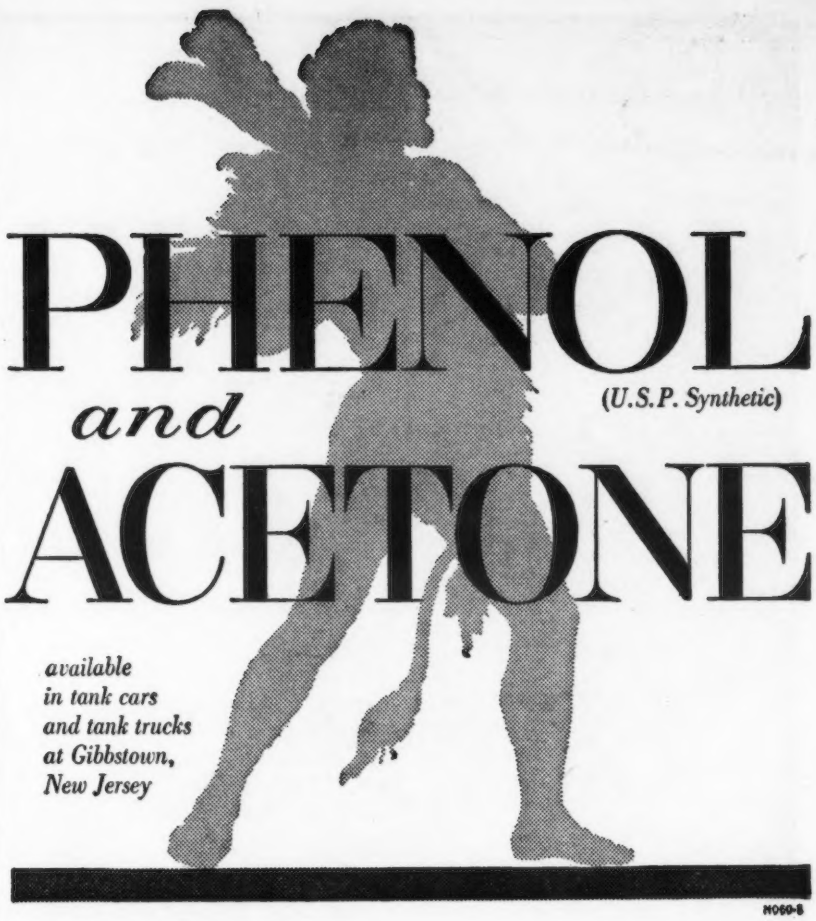
Hooker Chemical Corporation has issued a twelve-page bulletin describing **"HET Acid for Paints, Coatings and Other Applications."** Copies of bulletin 40A are available on request to the company's eastern chemical division, P. O. Box 344, Niagara Falls, N. Y. Specifications, physical and chemical properties, and typical reactions of the acid are given.

American Pharmaceutical Association has published **"Proprietary Names of Official Drugs,"** a forty-page booklet identifying drugs of the recently-revised USP and NF by proprietary or other trade names. This is a second edition of the pamphlet formerly known as "Manual 102." A single complimentary copy is being mailed to APhA members. For others, single copies are 25 cents each, with quantity discounts available for large orders.

A new twenty-four-page brochure, describing the role of industrial **water consulting services,** has been published by Hall Laboratories, a division of Hagan Chemicals & Controls, Inc. Copies are available by writing on company letterhead to Hagan at Hagan Center, Pittsburgh 30, Pa. Examples of lower water costs achieved through consultation services are given in the booklet, as well as case history examples describing process improvements that resulted from more efficient use of industrial water.

Effects of utilizing dissimilar metals in **cooling systems** and a discussion of what causes **galvanic corrosion** are featured in a 10-page reprint available from Nalco Chemical Company. For copies of reprint 91, write the company's advertising department at 6216 West 66th Place, Chicago 38. The booklet points up problems associated with poly-metallic closed and open-recirculating cooling systems and recommends the type of corrosion inhibitors designed to obtain optimum protection of all metals.

Spencer Kellogg & Sons, Inc., has issued two new brochures on **soybean lecithin,** explaining uses and giving chemical constants. Copies are available from the company's administrative office and research center at Buffalo 5, N. Y.



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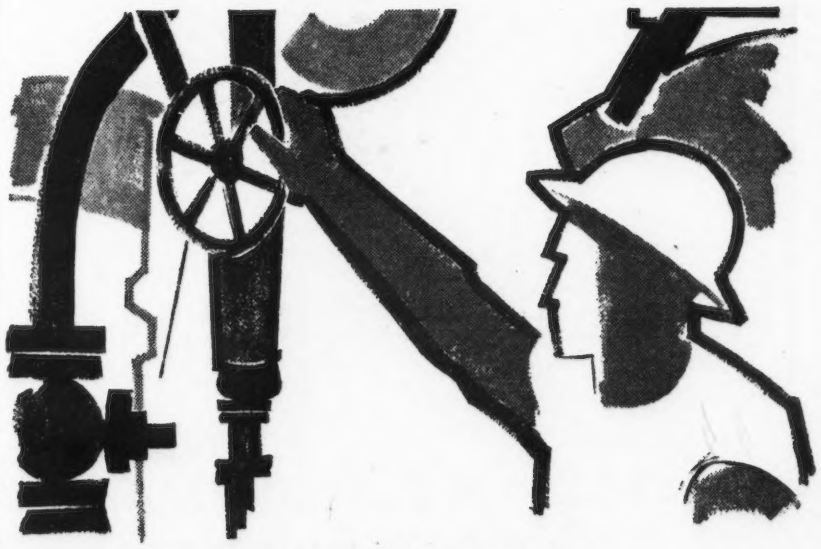

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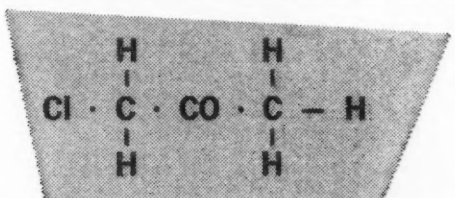

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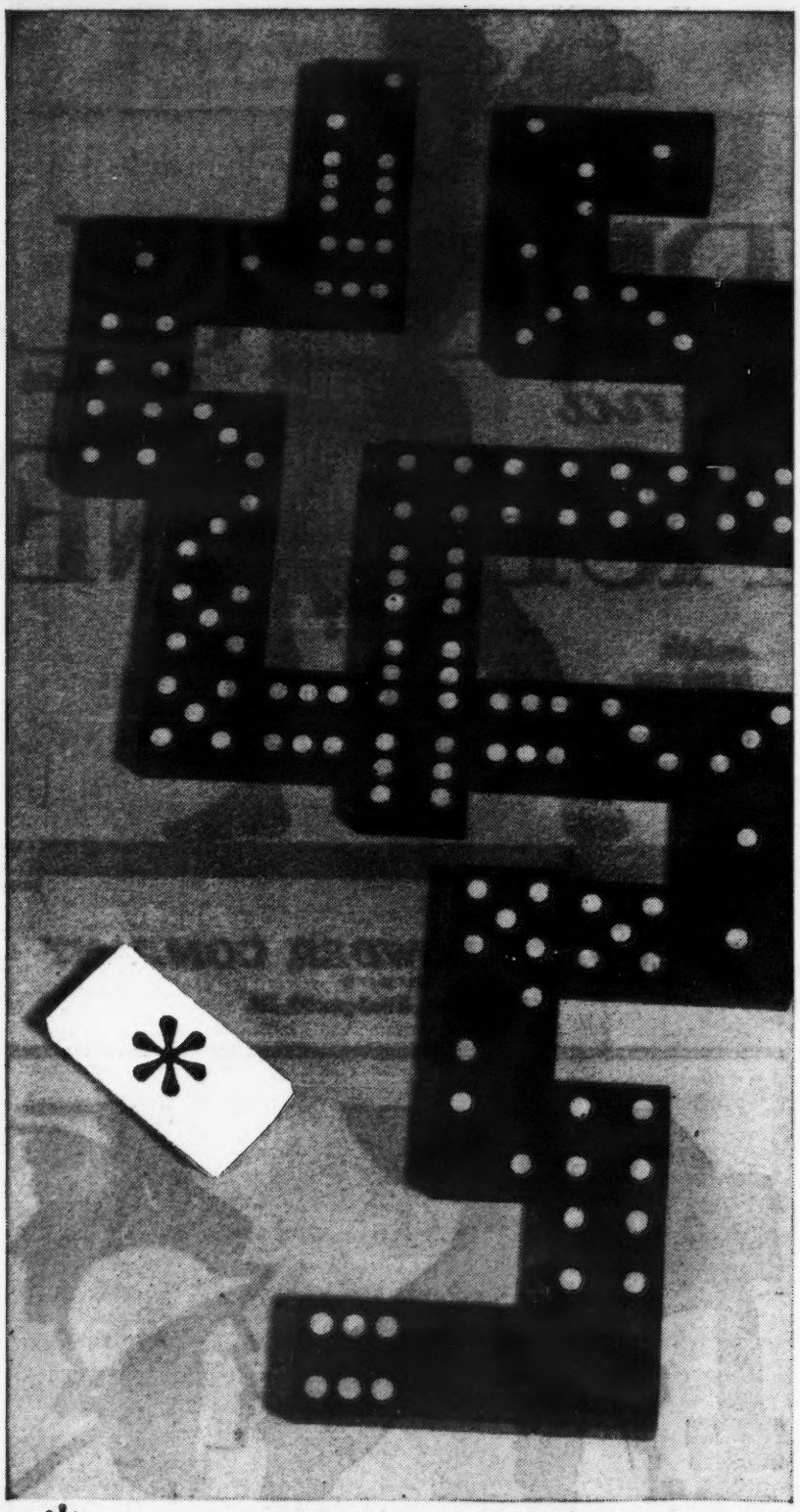

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KOPPERS COAL CHEMICALS

Coal Chemicals

One year ago the industry-wide steel strike began to make its effect known on steel, coke and allied products. Naphthalene and phthalic anhydride—short before the strike—became even tighter. Today shortages still exist and are expected to continue at least for the balance of the year. Demand for those and other coaltar chemicals has zoomed as technological developments have widened the scope of applications. Supply of many products, however, has been limited due to reduced steel rates. Consequently, buyers of scarce materials have led hectic lives in quest of chemicals to keep plants operating at profitable levels.

Elements of optimism in regard to supply of short items are being noted in the trade, however. Steel production rate rose a few points last week and seems ready to begin a sustained drive to more normal working levels. Thus most comments in the trade are now running along the lines that supply of tight chemicals will increase from here on out.

The American Iron and Steel Institute estimated that steel production in the week ended July 24 would amount to 54.6 percent of theoretical capacity equivalent to 1,556,000 net tons of steel. Output in the previous week was 1,476,000 tons, 1,739,000 tons in the comparable week one month ago and 365,000 net tons in the corresponding week one year ago.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last Month	July 24, 1959
118.30	118.30	118.40	118.45

For Current Prices See Page 9

Basic Products

Benzene—The tight supply situation prevalent in this area of the market continues without relief.

Observers are cautiously watching the steel rate climb and hoping that it continues to do so. Last week's estimated rate was placed at 54.6 percent, up a few points from the previous week. It is expected that the coming weeks will see the rate accelerate as the auto industry moves into full production of new models. Coke-oven products will follow the upward curve of production accordingly and it may be expected that increased amounts of benzene will be forthcoming as steel recovers.

Present estimates of the domestic supply situation indicate that contract customers are being supplied at contract prices. Premiums are being paid, however, by spot and export buyers.

Talk continues that additional petroleum producers may enter the benzene field. Whether concrete plans have been formulated, however, is difficult to determine. Unquestionably present market factors would seem to auger well for producers but steel and coke recovery by the first of the year may loosen the market.

Cresylic Acid—Sluggish activity is noted once more in this area of the market. Some producers are reported shut down in order to effect equipment repairs and maintenance. July and early August are considered to be the quietus before a brisk pickup in business predicted for the fall months.

Prices are unchanged.

Naphthalene—No improvement in the tight supply situation is noted by the trade.

Steel rate took another step in the right direction last week but the increase was slight and it will still be a long time before any improvement in supply can be expected from cokeovens.

Present estimates continue to regard the supply position of naphthalene as one which will persist at least until 1961 or beyond. It will take that long, observers report, before steel can sustain a good level of production capable of turning out cokeoven products to a degree required by customers.

Indicative of the high demand existing in this country and the rest of the world is the high price paid for import material.

On the domestic scene, crude naphthalene, 78°, in tanks, freight equalized, is moving at 6c. a pound.

Phenol—A major producer has announced plans to build a plant to produce pentachlorophenol and dichlorophenol in Canada. Contracts have been let and the company expects to be on stream in 1961.

In the current market phenol continues unchanged with demand moving briskly and suppliers able to meet regular calls.

Pyridine—Price schedule for pyridine was erroneously reported in this space last week.

Correct listing for refined, two degree [illegible] in tankcar quantity is 65c. per pound; carload lots in drums, 69½c. per pound and less carload, drums, 70c. per pound.

Tar Acids—Business is described as sluggish and unchanged. Current activity is reported to be the slowest of the year although it is felt that a pickup will start in August.

Toluene—Material for export continues a bit close. Domestic customers are experiencing no difficulty in acquiring toluene, although producers report more active inquiries than usual.

Motor fuel demands are siphoning off supplies as gasoline usage approaches the peak season. Bureau of Mines estimates gasoline consumption for August will be 5.4 above August of last year. Consequently more toluene is being run into gasoline to upgrade it.

Domestic price remains firm at 25c. a gallon in tankcars, delivered east of the Rockies.

According to Bureau of Mines toluene sales in May showed declines. Nitration grade dropped 11.5 percent from April with 2,236,670 gallons being reported sold in May as against April's figure of 2,527,662.

Considering the first five months, however, sales are ahead of last year's period 11,723,106 gallons to 10,815,621.

Industrial pure grade declined 10.5 percent. Sales in May were 565,726 gallons to April's 663,558. On the year as a whole sales are slightly behind with 3,019,099 gallons for January-May 1960 as against 3,051,781 for the same period in 1959.

Dyes

Tariff Commission preliminary report for 1959 reveals that three classes of dyes accounted for about two-thirds of all the coaltar dyes imported in 1959. Acid dyes totaled 1,117,000 pounds, valued at $2.4 million, compared with 947,000 pounds valued at $1.8 million in 1958. Direct dyes in 1959 totaled 917,000 pounds valued at $1.9 million, compared with 716,000 pounds,valued at $1.6 million in 1958. Imports of vat dyes in 1959 totaled 889,000 pounds, valued at $987,000 compared with 575,000 pounds valued at $824,000 in 1958.

Of the remaining important classes of dyes, imports of basic dyes totaled 462,000 pounds in 1959, or 10.9 percent of all the dyes imported last year. Imports of fluorescent brightening agents amounted to 280,000 pounds, or 6.6 of total imports. Fibre-reactive dyes amounted to 170,000 pounds, or 4 percent of total imports.

Intermediates

Benzoic Acid—A major producer is offering technical benzoic acid, flakes, at 25c per pound in carload or truckload lots, while less truckload quantity is listed at 29c a pound. Benzoic acid, technical, in molten form, is quoted from this source at 21c a pound. Prices are on a freight allowed basis.

Other producers contacted last week continued to quote 37c a pound on carload quantity, while ton lots are 41c a pound and less than ton lots are 43c a pound.

Durene—This petroleum source raw material is currently produced, or is potentially commercial with two petroleum petrochemical firms. Demand so far stems primarily from one source, and in only moderate amounts. Durene, which is 1, 2, 4, 5-tetramethyl benzene is currently made by distillation methods from petroleum reformate.

It is used principally for the manufacture of pyromellitic acid and pyromellitic dianhydride which are growing intermediate chemicals. In 55 gallon openhead returnable drums, durene is offered on the commercial market at $1.50 per pound.

The feeling is that should durene de-

Coal Chemicals

mand grow to sizable proportions, it could then be made more economically by synthesis methods, than by the present difficultly distillation recovery from reformate. Such methods, for example, might involve adding a methyl group to pseudocumene (1, 2, 4-trimethyl benzene) because pseudocumeme is more easily separated from petroleum reformates, since one can get up to 95% purity simply by fractionation. Pseudocumene occurs more abundantly in the reformate than does durene.

Fumaric Acid—A new method of producing fumaric acid has been announced by a development company. Designed for a dual purpose, the new method can recover fumaric from waste product streams and also produce fumaric from prime feedstocks.

Phthalic Anhdride—The supply situation remains unchanged. A tight position has existed for some time dating to before the steel strike last year. There is little, if any, chance of recovery before the new year according to trade reports.

Dependent as phthalic is upon naphthalene the only hopes of increased supply is in a rapid and sustained steel and coke renaissance.

Some optimism is being felt, however, as steel rate begins a slow rise from the week of July 4-11. For the past two weeks production has increased and opinion is that however slow, the rate will continue to rise. In other years consumers would not wax enthusiastic over a rate in the fifties but after the last four months any favorable report at all is bound to bring encouragement.

Present market reports are unvaried. The trade reports high demand and scarcity of material.

Pseudocumene—This petrochemical raw material is 1, 2, 4-trimethyl benzene. At present it has virtually no significant chemical end use, but is being investigated toward this direction. Should durene become a significantly larger volume product that it now is, pseudocumene would probably be used to synthesize durene, because it is present in reformate more abundantly, and is much easier, and less costly to separate out, simply by fractionation.

Misitylene—This is an interesting petrochemical to watch. It is 1,3,5-trimethyl benzene. It may be directly oxidized to tribasic acids, such a trimellitic acid.

Quinoline—Demand continues on the sluggish side, observers report. No immediate improvement is foreseen as yet. Captive use for niacin continues but outside activity is slow.

Currently quinoline in drums, carlots, freight equalized, is 50¾c. a pound.

Rubber Chemicals—Sales to the tire industry are expected to increase as the '61 autos swing into production shortly. Continued success of compact cars, and consequently less rubber per car-unit, will have a great deal of influence on total rubber chemical volume, however.

Tariff Commision's preliminary 1959 report revealed rubber chemicals production at 210 million pounds, an increase from 169 million recorded in 1958. The 24 percent advance was credited to higher production of cyclic and acrylic accelerators. Total sales was placed at 159 million pounds worth $102 million as against figures of 123 million pounds worth $80 million in 1958.

Styrene Monomer—A petrochemical producer has announced an expansion in styrene monomer which will raise the company's production capacity to 210 million pounds annually. The expansion is scheduled for completion by early 1961 at Torrance, Calif. The company first entered the market in 1955 and rated capac-

Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended July 24, was as follows:

Ammonium liquor	lbs.	496,938
Ammonium sulfate	lbs.	20,773,159
Benzene	gals.	2,003,195
Coaltar	gals.	10,949,070
Crude chemical oil	gals.	320,145
Solvent naphtha	gals.	64,029
Toluene	gals.	448,203
Xylene	gals.	128,058

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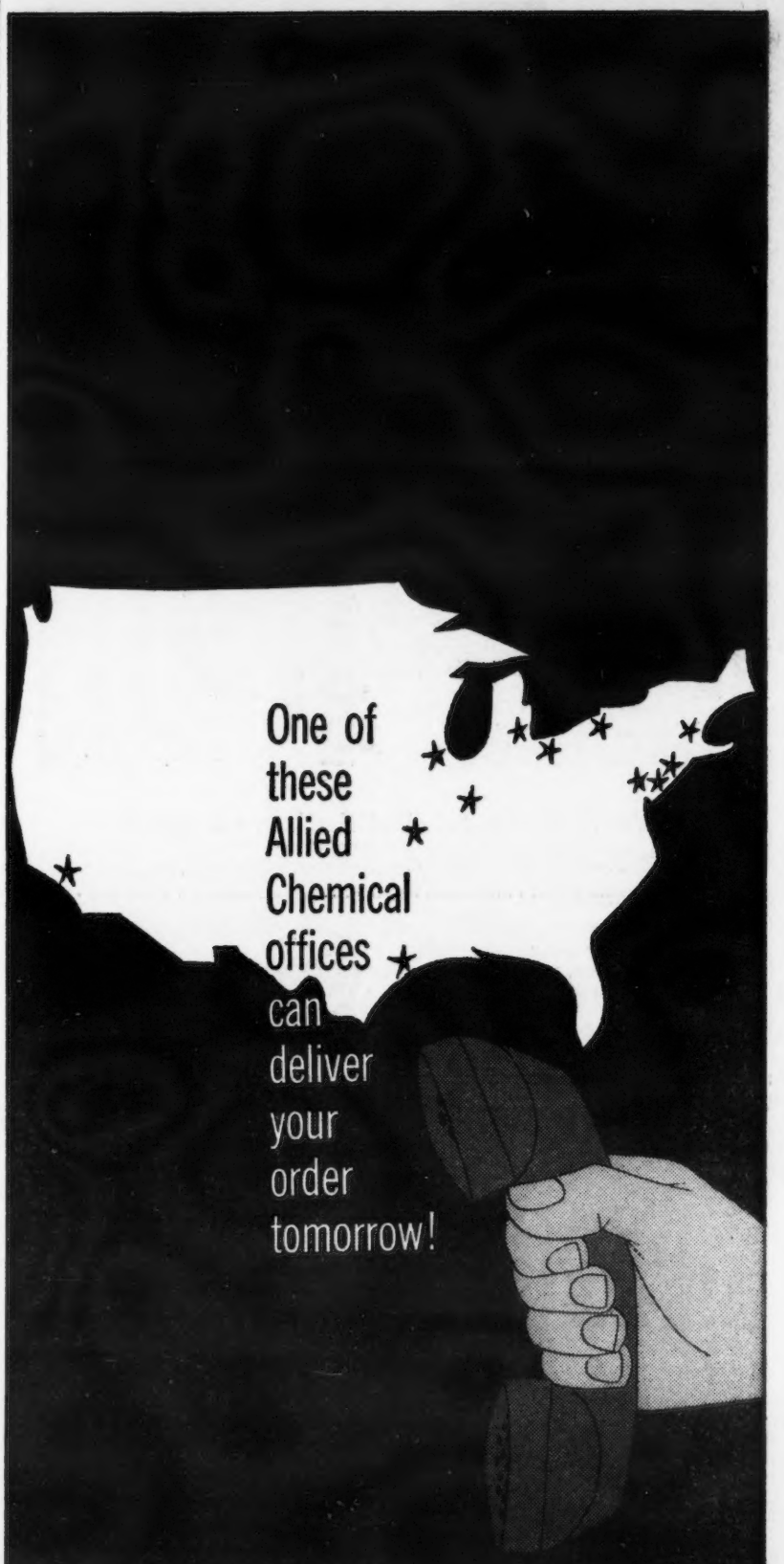

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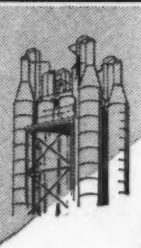

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Coal Chemicals

ity of the Torrance plant at that time was 125 million pounds.

A new entrant into the burgeoning styrene field was announced a week ago. The firm in question has plans for a 60 million pound a year plant to be located at the site of an existing refinery in Texas. Target date for production: 1962. It is reported the plant will be able to produce up to 75 million pounds a year if necessary. To be used for captive purposes, the styrene may be turned to production of polystyrene according to talk in the trade.

Reports reveal styrene moving well sustained by calls from rubber and allied industries. Current estimates tend to hold that the balance of the year will be quite successful.

US an Exporter

—Continued from page 3

thesis of coke from petroleum have forced cokeoven output into a sharp decline, despite rising naphthalene demand for phthalic anhydride domestically and abroad.

In 1958, mine and smelter cokeovens in West Germany operated at an average of around 93 percent of capacity; in 1959, only 84 percent of capacity.

Production of coke was 38.5 million tons in the Bonn Republic last year, 11 percent below 1958 and 15 percent below 1957. Tar recovery in 1959, some 1,730,000 metric tons, was 9.1 percent below the 1958 figure of 1,903,000 tons. In 1957, some 1,956,000 tons were produced.

Despite this drop in tar recovery, the Germans obtained 99,480 metric tons of hot-pressed naphthalene and 10,787 tons of pure material out of available tar supplies in 1959.

Output in 1958 was 82,909 tons of hot-pressed and 9,899 tons of pure naphthalene.

West German Exports Up

Total exports climbed from 22,965 tons in 1957 to 29,822 tons in 1958 and 39,405 tons in 1959. However, in 1960, the honeymoon is over. Reports now are that naphthalene is sold up through 1961.

German exports of naphthalene to this country so far this year are averaging 100,000 pounds a month. The year previous, exports from West Germany to the US averaged a million pounds a month.

But phthalic anhydride capacity in West Germany continues to climb. Phthalic output was 39,200 metric tons in 1957; 46,200 tons in 1958, and 55,900 tons in 1959. More capacity expansions are on the way.

Already at least one prospective American producer of naphthalene is taking a long look at sales possibilities in West Germany and elsewhere, the trade reports.

One observer has been told that the West Germans will continue to use naphthalene to make phthalic, rather than o-xylene. Capacity for the latter is rapidly expanding in the US, but it's held unlikely that big phthalic producers in Germany will order it to replace naphthalene as a feedstock unless two things happen in the immediate future:

1. o-Xylene drops to 4 cents a pound.
2. Technology breakthroughs permit high yields with o-xylene.

"Wish We Had It Now"

However the future might look, wistful reaction among Ashland personnel, naphthalene consumers and producers at the dedication ceremonies last week was unanimous: "We wish we had it now."

The 75-million-pound-a-year plant isn't due on stream until February, 1961, and right now the naphthalene shortage remains acute. The reasons aren't hard to find:

- Steel operations—not much in excess of 50 percent of capacity—have put the brakes on what still might be a record year for naphthalene production.
- Imports for the first five months of 1960 amounted to 17.5 million pounds, a dizzying drop of 36 percent below the 26.9 million pounds imported during the comparable period last year.
- Phthalic anhydride output for the first four months of 1960 rose 6 percent, to 128 million pounds from 121 million pounds during the like period in 1959.

Until the advent of petroleum naphthalene in 1962 in large quantity, it's felt that phthalic anhydride plant operators will have to sweat out steel production rates, scrounge world markets for imports and run occasional slugs of o-xylene through their plants in order to fill demand.

But the approach of the petroleum industry to the threshhold of naphthalene production is not simply a move to fill consumer needs. Behind it is a basic problem of gasoline production and the desire to upgrade byproducts.

Ashland explains it this way: During the 1950's, the automobile industry introduced the high compression engine. This increase in compression ratio caused the petroleum industry to reformulate its gasolines to meet the new requirements of higher octane and lower deposit-forming tendencies.

One result of this change was that the 400 degrees Fahrenheit 90-percent point of gasoline specification had to be lowered considerably.

By 1956 the 90-percent point of premium gasoline had dropped to as low as 302 degrees F. This created a real problem of what to do with 300 to 400 degrees F. boiling range crude oil, a fraction too high for gasoline and too light for kerosene.

At this time, although demand for jet fuels was becoming astronomical, this market could not economically absorb all of this fraction of crude.

Ashland started to work on dealkylation of 300 to 400 degrees F. aromatic catalytic reformates. Purpose was to convert the higher boiling aromatics into 200 to 300 degree aromatics for use in gasoline or extracted in a contemplated "Udex" unit.

Result was a catalyst breakthrough, a teamup with Universal Oil Products Company and a process for hydrodealkylation of reformates into benzene and/or naphthalene.

"Hydeal" in Three Locations

The "Hydeal" process, licensed through UOP, is being used in three petroleum projects thus far: Ashland's, at Ashland, Ky., which will produce benzene and naphthalene; Suntide Refining Company's benzene extraction plant at Corpus Christi, Tex., and a third undisclosed plant which will come on stream in September.

Most likely prospect for the third plant, although there is no confirmation, is Crown Central Petroleum Corporation's Pasadena, Tex., refinery. It's possible, but unlikely at present, that Suntide and Crown Central will make naphthalene.

Other petroleum producers have their own processes for demethylation of methylnaphthalene streams. Sun oil Company will use its own process, and Collier-Tidewater Company will employ a Union Oil Company of California process to build their naphthalene production facilities.

The fact that the 300-to-400-degree boiling range aromatic problem is not unique with Ashland (an estimated 20 percent of total US refinery capacity is reformate capacity) may cause a number of petroleum producers — large and small—to scrutinize "Hydeal" and similar processes in the near future.

Cokeoven Aromatics

—Continued from page 3

large-volume coal chemical producers, on the other hand, requires a plant layout costing several million dollars.

USI reports desulfurization costs in pilot plant operations of from 1.4 cents to 1.7 cents a gallon (for mechanically agitated treatment) and of 1.1 cent a gallon (for fluidized bed).

The USI process involves the use of high-surface sodium—that is, metallic sodium applied to inert solid carriers such as salt, soda ash and carbon.

Light oil feeds from cokeovens are first washed in sulfuric acid to remove impurities (unsaturated sulfur compounds, except thiophene).

This is followed by a distillation to take off the top fraction (benzene and toluene). In the vapor phase, the feeds are exposted to a mechanically agitated or fluidized high-surface sodium bed to remove thiophene.

Benzene and toluene, which are low boiling fractions, pass through the bed. Higher-boiling xylene does not.

Certain uses of benzene and toluene (1,4 adipic acid for nylon and di-isocyanates, respectively) must be sulfur-free. Sulfur is not a critical factor in xylene, which goes primarily into protective coatings.

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Coatings Materials

July is a traditionally slow month for most year-round industrial producers, This year the usual decline in factory operations, brought on by the time outs taken for vacations, takes its toll in lessened demand in many quarters of the coatings market. In some areas the decline has cut into activities normally exempt Exterior painting usually at its peak during the summer months has not kept its warm-weather promise. Some observers feel that the hot weather over much of the country has caused paint brushes to be stowed away, as less strenuous summer-time activities beckon. The result will show up in total sales for paints, and is already being felt by many producers.

Activity in the casein, shellac and resin markets continued to be quiet. Casein listings were softened, quotations for Argentine dropped at 20¼ to 20¾ cents per pound. French casein was being offered at 19¼ cents per pound, and Polish followed at the same price. Against few offers of Australian casein, prices were reported at about 22½ cents per pound.

The shellac market was quiet, with prices at their longstanding listings. Supplies at both the primary and domestic markets were reported to be in good balance. Lessened demand, usual at this time, keeps the market generally featureless.

Phthalate producers report demand for the esters at better than last year's levels, but down marginally from that a few weeks ago. The supply situation for the esters improved as the demand decreased but some producers report some difficulty in meeting all calls for material. The outlook for the next two months is for a return to the tightness of a few weeks ago. The interlude of lessened demand is welcomed by producers but is not considered to be a factor that will be around much longer. It is felt that demand for the esters will be increased faster than steel's return to full production can start naphthalene flowing at normal rates.

Price Trends

Advanced
None
Reduced
None
Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 24, 1959
103.16	103.15	103.03	103.05

For Current Prices See Page 9

Prime Pigments

Aluminum Paste and Powder—Despite the generally favorable rate of activity for most paint materials, particullarly those used in exterior paint formulations, demand for the aluminum paste and powder is termed routine. No price changes are reported at this time, nor seem likely over the remainder of the quarter.

Carbon Blacks—Market for the carbon blacks is reported to be well situated. Some slack in the market is being felt due to the summer shut-down of mills and plants but sources are not concerned. No price changes seem likely at this time, as demand for the carbon blacks is said to be excellant. No problem exists in availability of supplies.

Chrome Colors—Census reports that production of chrome oxide green (C.P.) during May was 332 short tons, down from the 501 short tons for April and well below the 573 short tons produced in May of last year. Stocks at the end of May amounted to 719 short tons, a slight reduction from the 800 short tons on hand at producing plants at the end of April. . .Chrome orange and yellow (C.P.) output for May was 1,910 short tons, again below the mark set for the previous month. Output for May 1959 was 2,535 short tons. Stocks at producing plants at the end of May were estimated at 3,218 short tons. Exactly a year ago, stocks amounted to 3,478 short tons.

Production of molybdate chrome orange (C.P.) during May was estimated by the Census Bureau at 544 short tons. For the previous month, the output amounted to 507 short tons. Stocks at producing plants at the end of May were reported at 773 short tons, a slight reduction from the 804 short tons on hand at the end of April.

Dry Colors—With some decrease in the level of painting activities, particularly in exterior painting, demand for paint materials is reported to be less than that for a few weeks ago. Supplies are reported to be in excellant balance, with prices holding at their previously established levels.

Lead Oxides—Since the price advance of two weeks ago of ½c. per pound on all grades of the oxides, no new factors have been reported for the lead pigments market. Market is reported to be generally routine. Other related lead products that were increased along with the lead oxides were litharge, and mineral orange. Both items were increased ½c. per lb. across the board.

Titanium Dioxide—Production of pure and composite titanium dioxide for the month of May totaled 42,460 short tons, with stocks at the end of May totaling 87,852 short tons. In both cases rate of production and level of stocks held at the same levels when compared to the figures for the previous month and for the same month last year.

Zinc Oxide — Producers report no change in prevailing market conditions. Prices are termed firm, and are reported to be unchanged. Supplies are fully available and demand is not expected to strain stocks in the next few months.

Lacquer Materials

Cellulose Butyrate/Acetate — Routine market conditions continue to dominate the long-standing market situation for this lacquer material. Prices for cellulose acetate butyrate power, with 17 percent content butyryl, in bags, delivered East, is .545 to .555 cents per pound. For 27 percent butyryl content, same basis, .595 to .605 cents per pound. For 38 percent butyryl content, same basis,, .545 to .555 cents per pound (same price for 38 percent butyryl content, half-second). For 50 percent content butyryl, same basis, .585 to .595 cents per pound.

Nitrocellulose—As above, market conditions are generally routine. Biggest demand for nitrocellulose is reported to be from the furniture industry. Most trade men feel demand from that industry will be favorable this year. For the present, prices and supplies remain unchanged.

Plasticizers—Sources report that the supply position of the phthalate esters is somewhat improved when compared to the tight situation of a few months ago. Biggest factor in the lessened demand is the slowdown in industry activity that usually comes with the mid-summer months. Actual levels of the stocks of the esters is not felt to be up to the point where producers could answer all calls for material.

The outlook for the months ahead is not favorable. Producers anticipate that steel's return will not be fast enough to permit naphthalene to again flow freely. August and September should be marked by increased demand for the phthalates, but with no improvement in the balance of supplies. Except for the supply position of the phthalates, most producers report business is being done at a brisk rate.

Miscellaneous

Casein—Demand for Argentine casein was barely noticeable last week, according to reports from sources in the trade. Listings softened somewhat, with the last quotations ranging in the neighborhood of 20¼ to 20¾ cents per pound. Offers of French casein for prompt shipment were reported at one cent per pound lower listings than the Argentine. Polish is at 19¾ cents per pound. Australian casein supplies are said to be somewhat snug with no new material available at this time. Listings are 22½ cents per pound.

The new season for Australian casein started July 1 and by October production should reach its peak. Expectations for the 1960-61 season is for about 10,000 tons. The quality of the Argentine casein is said to have improved. Shipments to the US during the first six months of this

—Continued on page 67

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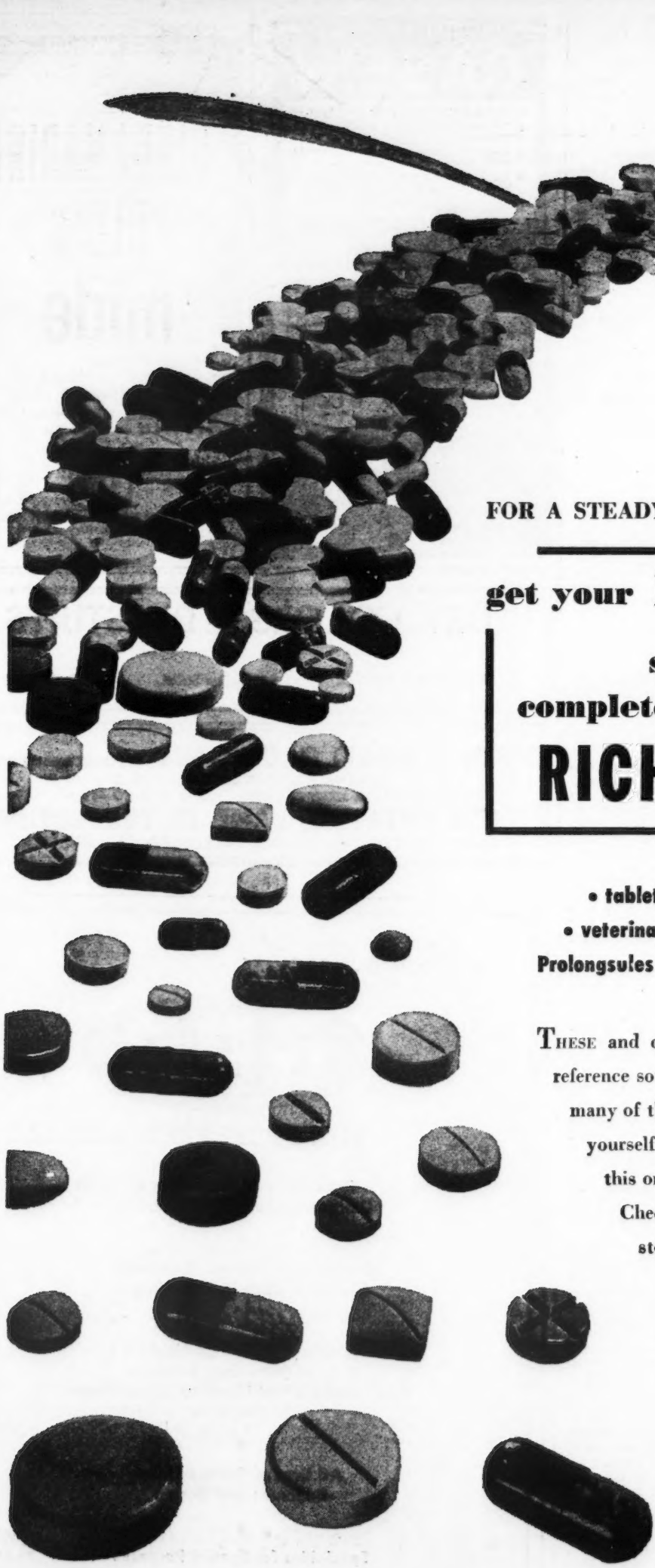

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Drugs, Fine Chemicals

A major producer has posted higher prices for hydrocortisone. Advanced 5 cents a gram above the former official schedule, new listings are: kilo lots $1.15 a gram; 100 to 999 grams $1.17; and 5 to 99 grams $1.20. Action is obviously intended to shore up what has been a tottering price structure. In this respect, it is similar to price advances posted late last year for riboflavin, streptomycin, and DHS, all of which were in good demand at the time despite price weakness brought on by intense competition among domestic manufacturers.

According to trade reports, hydrocortisone has been selling at as low as $1 per gram, at which price the profit margin hardly justified the effort put into the sale. Now, however, provided the trade adopts the higher schedule, this situation may be improved, if only slightly.

Price Trends

Advanced
Hydrocortisone, 5c. per gram.

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last Month	July 24, 1959
59.93	59.93	59.93	60.49

For Current Prices See Page 9

"Dichlorosone," a new steroid possessing excellent topical anti-inflammatory activity, is now available as an aerosol foam, in addition to the more conventional cream and aerosol. Trade-named "Diloderm Foam Aerosal," it is sold in a 10 gram dispenser, complete with metering valve, that provides approximately 100 applications, each sufficient to cover an area the size of the palm. The average patient, the manufacturer says, will pay an average of 3½ cents less per application of the foam aerosol.

Early clinical trials indicate that it is possible to immunize children with live attenuated measles virus. As reported in Pediatrics (July 1960), the Edmonston strain of measles virus was administered to twenty children, selected at random at Sea View Hospital, Staten Island, N.Y., an institution for the care and treatment of tuberculosis. The susceptible subjects developed either no symptoms at all or a modified measles while all of the susceptible children developed a significant titer of neutralizing antibodies. In no case were there any complications.

In summarizing their findings, doctors engaged in this research project stressed the need for a measles vaccine, and cited indications that measles immunization as a routine procedure may not be too far distant.

Considerable mortality occurs as the result of measles; in 1958, 490 deaths in the US were attributed to this cause. Additionally, staphylococcal pneumonia which may occur as a complication of measles results in a high mortality rate and is often resistant to antibiotic treatment.

Portent of things to come, one should hope not: Wholesale prices for drugs and medicines have been slashed 10 percent in Egypt, in a follow-up move to President Nasser's sudden nationalization of all pharmaceutical distributors in the Egyptian sector of the United Arab Republic. The nationalization decree, issued because of what the government called "exorbitant" costs for pharmaceuticals, provided for a total reduction of 50 percent by next year.

Citric Acid—Food, beverage, and industrial requirements are adding up to a nice healthy sales volume for citric acid—which some people call a real bread-'n-butter item—sources in the trade point out. Easily meeting the demands, producers are quoting at long established prices.

Although confirmation via government statistics is not available, citric acid production in 1959 is estimated at anywhere from 50 to 60 million pounds. Against this, current domestic capacity is said to be in the vicinity of 122 million pounds with the largest of the 3 US manufacturers reportedly adding to its present capacity of 90 million pounds.

A US manufacturer is currently building a citric plant in Mexico, much of whose output will be used captively. A second citric plant has been slated.

Folic Acid—Food & Drug Administration has proposed a regulation limiting the folic acid content of over-the-counter multiple vitamin preparations to 0.4 of a milligram.

Manufacturers of the vitamin and other interested parties have until July 28 to file written comments on FDA's proposal.

The government agency began investigating a charge that folic acid can mask the symptoms of pernicious anemia, following testimony by a former member of its staff, Dr. Barbara Moore, before the senate antitrust and monopoly committee, June 2.

Dr. Moore, who quit FDA in a huff when she discovered that the agency had tentatively listed folic acid as "safe" under the food additives law, testified that she had gathered information indicating that folic acid can mask the symptoms of pernicious anemia, thereby interfering with proper diagnosis of the disease.

FDA immediately solicited the opinions of professionals. The first panel of six medical experts recommended that folic acid not be used in mutivitamin preparations sold without a doctor's prescription.

A second panel, however, maintaining that the only danger of folic acid in mutivitamin preparations is to the few patients with pernicious anemia, recommended limiting the daily dose to 0.4 of a milligram. FDA apparently agreed.

Hydrocortisone—A major producer has established a new price schedule for hydrocortisone. Up 5c. per gram, new listings are: kilo lots $1.15 per gram; 100 to 999 grams $1.17; and 5 to 99 grams $1.20.

The firm's move on hydrocortisone recalls similar actions in the past year designed to shore up shaky price structures for riboflavin, streptomycin and DHS, and, in turn, to boost the profit return to a reasonable level.

Unaffected by the change, cortisone is still listed at $1.05 per gram. Market for this drug has grown smaller with the rise in demand for hydrocortisone.

Iodine—Imports of crude iodine in May were 137,391 pounds, valued at $97,969. Of the total, Chile shipped 124,163 pounds, valued at $86,722, while Japan shipped the remainder (13,228 pounds at $11,247). There's no import duty on crude iodine.

Polio Vaccine—A new polio vaccine, costing four times more than the conventional Salk vaccine, was announced a fortnight ago. Called "Purivax," it is reputed to be of uniform high potency, fast to immunize, and purer and safer than its predecessors—advantages that will help to offset the current, high price of $1.90 a dose (to doctors), the manufacturer hopes.

After five years of research and development work, an initial lot of 120,000 doses of the new vaccine was approved by the Public Health Service on July 8. Immediately, the manufacturer disclosed that it would distribute this material in areas in the south and southwest where the polio rate has been especially high in recent years. National distribution is anticipated this fall.

Although Salk vaccine has been available for several years, 49 percent of the people in the US have had no shots at all, according to the Department of Health, Education and Welfare.

In addition, HEW notes that approximately 40 percent of the population has maximum protection against polio and that 11 percent have been partially vaccinated with one or two injections.

Steroids—"Dichlorosone," a new steroid that possesses excellent topical anti-inflammatory activity, is now available as an aerosol foam, in addition to the more conventional cream and aerosol.

According to the manufacturer of the drug, the foam embodies all the advantages of the known topical dosage forms, such as ease of application, therapeutic efficacy, and economy. Of particular note is the last: the average patient reportedly will pay an average of 3½c. or less per application of the foam aerosol.

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Thiamine—Keen competition still exists reportedly although demand is quite well maintained. A depressing influence appears to be the steady influx of cheaper material.

A considerable quantity was taken off the domestic market in April, however, through shipments abroad. These totaled 5,350 pounds and were valued, according to the Commerce department, at $50,574. Buying were: Brazil 1,429 pounds at $12,030; Switzerland 926 pounds at $9,257; India 826 pounds at $1,957; Canada 606 pounds at $6,875, and a host of other countries which took, in comparison, rather insignificant amounts.

Theobromine—May imports of theobromine, which is no longer manufactured domestically, totalled 11,322 pounds, and were valued at $38,455 and dutied at $3,109. Shipping here were: Netherlands 5,853 pounds, valued at $19,769; United Kingdom 3,969 pounds valued at $16,992; and France 1,500 pounds, at $1,694.

Vitamin A—Reduced late in '59, prices for vitamin A are firm with none of the weakness apparent in markets where imports are a factor apparent here. Demand is said to be routinely good, supplies fully adequate.

Exports of vitamin A dropped to 8,819 pounds in May from 13,401 pounds in April. Bringing US exporters $248,549, May shipments went to: Canada 3,177 pounds at $63,736; Netherlands 1,388 pounds at $66,000; Philippine Republi 751 pounds at $9,679; Japan 489 pounds at $12,925; and lesser amounts to several other countries.

Vitamin B_{12}—Exports of vitamin B_{12} in May were valued at $105,582, slightly below April's figure ($121,584). Largest shipment, in terms of dollar value, went to Denmark ($33,412). Also on the buyers roster: Argentina ($23,395), Japan ($10,220), and Bermuda ($7,884). As was pointed out here earlier, volume of B_{12} exports is not disclosed by the Commerce department as this might tend to indicate the operations of individaul firms.

Excluding B_1 and B_{12}, exports of vitamins of the B complex in May amounted to 28,147 pounds, and were valued at $420,339. Major buyers—and incidentally major exporters of vitamins to the US—were West Germany (5,710 pounds at $220,420) and the Netherlands (3,410 pounds at $30,036).

Prices for vitamin B_{12} and cobalamin and cyanocobalamin products were reduced substantially in mid-June. To cite an example, crystals were reduced to $95 a gram from $120. Whether the lower prices will shore up what had been a tottering price structure is not yet clear. But trade people, like Kennedy people, have high hopes.

Botanicals

A few price changes were recorded last week. Coincidental with the arrival of new crops, Irish moss was advanced, Hungarian chamomile flowers reduced. Also marked up were henbane leaves—indications are that this is going to be short again—and agar agar.

Imports detained by the Food & Drug Administration at the Port of New York during the two-week period ended July 15 included 3 lots (120 bags) of gum karaya; 291 bags of kola nuts; 11 bales of lemon peels; 59 bales of orange peels, and 3 lots (137 cases) of papain.

Agar Agar—USP Kobe No. 1 strip has been advanced to $2.65 to $2.75 a pound. The very substantial price boost reflects the short supplies dealers here have on hand as well as the limited offerings they are receiving from abroad.

The situation in this market over the past several months has been one of good demand and small stocks, a combination that usually leads—as it did in this case—to rising prices. At the beginning of the year, the quote on Kobe No. 1 strip was $2.15 and from this level, it rose to $2.25, and thence to $2.35, $2.40, and $2.60.

Chamomile Flowers—Recent arrival of new crop material from abroad has resulted in a price decline, to 90c.-$1 a pound, from the former $1.10. At the start of the year, the quote was $1.25.

Roman chamomile flowers are still quoted at $1.50 to $1.75 a pound but the price range will probably drop with the arrival of new crop, expected shortly.

Ergot—Routine inquiry is reported. Quote, unchanged, is $1 to $1.25 a pound.

Gentian Root—New crop gentian root is beginning to arive here but so far this has not disturbed prices, which currently stand at the first-of-the-year level, despite minor fluctuations throughout the past six months.

The root is listed at 24c. to 25c. a pound, the ground and powder material at 30c. a pound.

Irish Moss—High quality Irish moss is currently being offered by dealers here at about 25c. to 27c. a pound, approximately 5c. a pound higher than that previously quoted. Trade reports cited higher replacement costs.

Chemical Trade to Hear

—Continued from page 3

Glennan and senior staff members will describe NASA's missions, long-range plans and organizations. Other sessions Thursday and Friday will deal with advanced rehearch, launched vehicle and space flight programs.

The final session will be devoted to business administration matters, including some pointers on how to do business with NASA.

Admission to the Washington conference is by invitation only, and those attending will need security clearance.

Other NASA centers across the country will hold similar briefing conferences, but these will deal more directly with the technical activities of the centers and specific kinds of industry support they require.

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WALKER LABS CHAIRMAN: Myron Walker, who has been elevated from president to chairman of the board of Walker Laboratories, Inc., Mt. Vernon, N.Y., a subsidiary of Vick Chemical Company.

Ungerer & Co. Sets Up London, England, Branch

Ungerer & Co., New York essential oil and aromatic chemical dealer, has just established an office in London, England, and indicates plans for further expansion of its overseas operation.

Kenneth G. Vorhees, sr., president of Ungerer, made the disclosure after returning from a seven week European trip where he was accompanied by Ivon Budd, first vice-president, and Kenneth G. Vorhees, jr.

The London branch, which will facilitate service to customers in Australia and New Zealand, is located at 14-18 Weedington Road. The firm has maintained a Paris branch for some time.

Acetylated Monoglycerides Are Cleared for Use in Foods

Acetylated monoglycerides have been cleared as "safe" for use in foods under certain specified conditions by the Food & Drug Administration. The agency also disclosed that it has an application under consideration for use of manganese bacitracin in poultry feed as a growth stimulant.

In approving the monoglyceride petition of Distillation Products Industries division of Eastman Kodak Company, Rochester, N. Y., FDA fixed a limit of 5 percent on the quantity of the chemical in the finished food when used either as a food coating agent, a food container component, an equipment lubricant, or as an emulsifier in food.

To insure safe use of the additive, the agency required that its name be on the label of the container along with adequate directions to provide a final product that complies with the limitations prescribed in its clearance order.

Allied Elevates Nolan

James P. Nolan has been appointed manager of organization development for Allied Chemical Corporation's National Aniline Division, New York. Mr. Nolan will assist in developing programs aimed at increasing the effectiveness of supervisory and staff functions.

Polybutadiene Ante

—Continued from page 5

Stauffer Chemical Company and American Synthetic Rubber Company (OPD, 7/18/60).

The two firms organized a new fifty-fifty subsidiary — American Rubber & Chemical Company — to produce polybutadiene and polyisoprene rubbers. Construction of a 30,000-ton-a-year plant has been scheduled to get under way immediately at Louisville, Ky. Target month is September, 1961.

Behind the Phillips expansion lies the company's conviction that "Cis-4" rubber will replace a substantial amount of natural material in truck and car tire treads.

Tire treads made from "Cis-4," or "Cis-4" in combination with natural rubber, are reported to show high resilience, low heat build-up, exceptionally long wear and high resistance to abrasion, aging and blowout.

Butadiene, raw material for polybutadiene, will be supplied captively from facilities adjacent to Phillips' synthetic rubber plants.

Additive Law

—Continued from page 7

still requires elucidation some two years later, it should come as no surprise to additives makers. It took eight years of congresssional debate and discussion to build the complex edifice, the MCA manual recalls.

Under the amendment, a manufacturer must petition the Food & Drug Administration for a special regulation permitting the use of a substance as a food additive.

Once government scientists are satisfied that a proposed additive has been tested adequately to prove its safety, an order will be issued permitting its use within certain prescribed limitations, such as amount and condition of use.

The MCA's new booklet is published as an activity of the association's food additives committee.

Copies are available from the association at 50 cents each. Address: 1825 Connecticut Avenue, N. W., Washington, 9, D. C.

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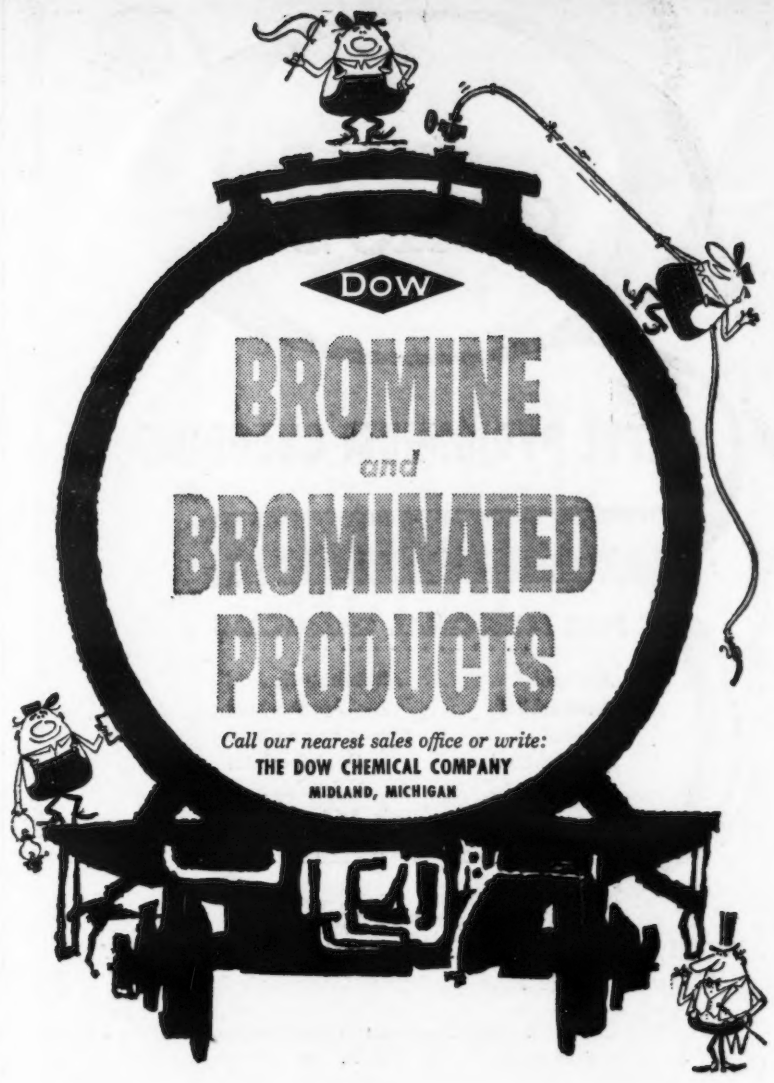

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Jobs & People

Allied Chemical Corporation, New York—**Howard H. Hurmence** has been named assistant director of research and development. **Sherwood E. Aldrich** has joined the engineering department of the Barrett Division's Grays Ferry plant in Philadelphia.

American Cyanamid Company, New York—**T. R. Piaget** has been appointed traffic manager of Cyanamid International, replacing **L. L. Altmann** who is retiring after thirty-six years with the company. Mr. Piaget continues as supervisor of sales service, forwarding and billing department.

Concord Chemical Company, Camden, N. J.—**James H. Ginn** has been named a sales representative for the greater New York and northern New Jersey area, handling the company's line of cresylic acid and cresols, waxes, soaps, textile finishes and related materials.

Delhi-Taylor Oil Corporation, Dallas, Tex.—**Lewis Gross** will move to Dallas from the company's Corpus Christi plant as manager of research and development. He was formerly chief engineer of manufacturing. **Frank A. Reneau** will make the same transfer as director of safety and training.

Diamond Alkali Company, Cleveland, Ohio—**Charles P. Egolf** has been named assistant manager of the southeastern sales office in Memphis, Tenn.

Dow Chemical Company, Midland, Mich.—**W. B. Brown,** now product manager of chlor-alkali sales at Midland, will transfer to Cleveland, Ohio, September 6 to assume the post of sales manager of the products branch of the industrial service division.

Enjay Chemical Company, New York—**T. H. Rhodes** has been named to head the marketing and technical service coordination section; **R. T. Kelley** has been appointed head of the manufacturing coordination section; **T. C. Drakos** has become marketing coordinator, and **D. H. McClure** manufacturing coordinator.

Esso Research & Engineering Company, Linden, N. J.—**Dr. Edgar L. Steele** will start an assignment in the company's analytical chemistry division after first doing a year of postgraduate work at Michigan State College.

Food Machinery & Chemical Corporation, New York—**Leonard G. Nussbaum** has been appointed production manager for the chemicals and plastics division. He will be replaced as resident manager of the division's Nitro, W. Va., plant by **A. G. Draeger. Bert S. Taylor,** an FMC official, has been named assistant director for mobilization planning of the chemical and rubber division of Business & Defense Services Administration.

Hooker Chemical Corporation, Niagara Falls, N. Y.—**Jay P. Eggert** has been appointed works manager of the synthetic phenol plant slated for construction near South Shore, Ky., by the Durez Plastics Division. He is presently production superintendent of chemicals at the North Tonawanda, N. Y., plant.

International Minerals & Chemicals Corporation, Skokie, Ill.—**Sinclair B. McCoy** has been elevated to manager of sales services for the materials department of the agricultural chemicals division.

Jefferson Chemical Company, Houston, Tex.—**Carl G. Ries** has been appointed manager of the newly-created patent division.

Koppers Company, Pittsburgh, Pa.—**John D. Jones** has been named manager of the central staff industrial relations department of Koppers tar products division.

Monsanto Chemical Corporation, St. Louis, Mo.—**William A. Lang** and **John C. Moran** have been appointed assistant directors of the marketing services department.

Pennsalt Chemical Corporation, Tacoma, Wash.—**Burt R. Osterman** has been named regional traffic manager at Tacoma.

Chas. Pfizer & Co., Brooklyn, N. Y.—**Charles W. Smith, jr.,** has been named an assistant general production manager at company headquarters. **Paul A. Benning** succeeds him as manager of the Terre Haute, Ind., plant.

Shell Development Company, Emeryville, Calif.—**Dr. Walter K. Henle** has joined the staff as chemist in the analytical department.

Sun Oil Company, Dallas, Tex.—**Jack C. Hardy, jr.,** has been named assistant attorney general for the Gulf Coast production division.

Union Carbide Corporation, New York—**Howard S. Bunn,** Carbide's president, has been awarded an honorary degree of doctor of engineering by Lehigh University.

United States Rubber Company, New York—**Dr. Donald C. MacDonald** has been named senior research scientist at the Research Center in Wayne, N. J. He was formerly with the company's research and development department at Passaic, N. J.

Wyandotte Chemicals Corporation, Wyandotte, Mich. — **Bruce Swinehart** has joined the company in the analytical department.

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Obituaries

J. Herbert Babcock

J. Herbert Babcock, former director and vice-president of Hooker Chemical Corporation, Niagara Falls, N.Y., died July 16 in that city. He was sixty-eight years old.

Mr. Babcock's retirement in April, 1957, brought to a close forty-one years of service with Hooker. He joined the company's Niagara Falls plant in 1916 as a research chemist and advanced successively to research manager, then manager, director and, in 1951, to vice-president in charge of development and research.

Donald F. Cushman

Donald F. Cushman, vice-president in charge of sales and assistant to the president of Innis, Speiden & Co. before it was acquired by International Minerals & Chemical Corporation in 1950, died July 15 in Cleveland, Ohio. He was fifty-four years old.

Mr. Cushman, who started with Innis, Speiden in 1928 as sales representative in the Cleveland area, was named assistant sales manager of the company in 1942 and assumed his executive posts in 1950. When the firm was acquired by International Minerals, he supervised disposal of various wax and other interests that the new parent company did not wish to retain.

He left the Skokie, Ill., company in 1953 to work on an invention, and then in 1956 joined Clarence Morgan, Inc., of Chicago, as sales manager. Mr. Cushman resigned from that firm three years later and returned to Cleveland where, at the time of his death, he was engaged in the acquisition of a company in the building products field.

Raymond E. Horn

Raymond E. Horn, retired president of Abbott Laboratories, North Chicago, Ill., died July 17 in San Francisco. He was seventy-four years old.

Mr. Horn came to Abbott Laboratories in 1922 when the company acquired Dermatological Research Laboratories, of Philadelphia, where he had been sales manager. He continued in that post for the dermatological research division until 1933, when he was appointed general sales manager of Abbott.

In 1937, after helping to boost Abbott's sales from $4 million to $9 million in four years, he was elected vice-president and director of sales. Ten years later, when sales had reached nearly $60 million, he became president and general manager. He retired in 1950, serving for a time as president emeritus and special consultant.

Eugene Bird, president of Eastern Gas & Fuel Associates, died July 19 in Boston, Mass. He was sixty-seven years old.

Henry T. Chandler, retired vice-president of Vanadium Corporation of America, died July 19 in New York. He was sixty-nine years old.

James Good Conley, retired paper company executive, a former general chairman of the Sulphite Paper Manufacturers Association, died July 17 in Mount Vernon, N.Y. He was sixty-six years old.

Mrs. Lillian Sefton Dodge, former president of Harriet Hubbard Ayer, Inc., cosmetics manufacturers, died July 18 in New York.

Phillips B. Marsden, a sales consultant to the drug industry, died July 20 in Biddeford, Me. He was sixty-seven years old.

Hugo Helburn, founder and treasurer of Apex Chemical Company, Elizabethport, N.J., died July 3. He was 101 years old.

Samuel W. Menefee, jr., manager of the package development and merchandising department of the packaging materials division of Armstrong Cork Company, Lancaster, Pa., died July 17 in that city. He was fifty-three years old.

MacDonnell Roehm, coordinator of marketing since 1957 for Standard-Vacuum Oil Company, White Plains, N.Y., died July 20 in Darien, Conn. He was fifty-seven years old.

Int'l Process, Patterson Merged by Cleveland Owner

International Process Equipment Company, Dayton, Ohio, has become a division of Patterson Foundry & Machine Company of East Liverpool, Ohio. Both firms are headed by Daniel Richman, Cleveland industrialist. He acquired International Process in 1958 and Patterson Foundry & Machine in 1959.

Bicycle Case Hurts Metals

—Continued from page 5

der the "escape clause" having to do with imports of clover seed and spring clothespins. In each of these instances, as in the bicycle case, the President ignord the Tariff Commission's recommendations and imposed his own form of relief.

In submitting the lead and zinc case to the President two years ago, the six-man Tariff Commission, though unanimous in finding that the domestic industry was in need of relief from imports, divided equally on the action that should be taken.

Three commissioners proposed that tariffs be increased to the maximum amount allowed by law and that imports be put on a quota basis. The other three opposed quotas but favored a restoration of the 1930 tariff rates on lead and zinc.

The Quotas on Lead and Zinc

The President rejected both proposals and provided simply for quotas on unmanufactured lead and zinc, equal to 80 percent of the average annual commercial imports during the five-year period 1953-57.

It is expected that the decision of the Customs Appeals Court will have its repercussions in congress when it reconvenes next month (August 8 for the senate, and August 15 for the house).

Legislation is pending in both houses to increase duties on lead and zinc because the quota system was not considered sufficient to meet the industry's needs.

In view of the court's decision putting the quota system in jeopardy, it can be expected that the mining states will make vigorous efforts to get the bills enacted if they can.

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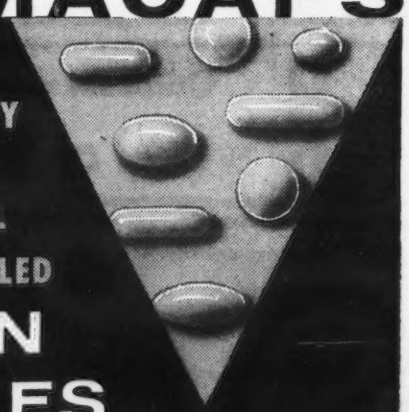

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The bulk of sales of antistatic agents is to textile companies where these versatile compounds are put to work in reducing static charges on textile fibers and yarns. In processing, many fibers tend to build up a static charge of electricity due to friction with other surfaces. The function of the antistatic agent is to minimize this buildup and allow whatever charge is built up, to leak off as rapidly as possible. Durable antistats are available and are usually utilized with a catalyst or cross linking agent and cured. Most antistats are non-durable, however. Textile mills use these materials in spinning, weaving, batching and folding operations. The hazard of fire is also cut down by maintaining antistatic activity. Smaller outlets for antistatic agents include wax polishes, resins, and paper products. When incorporated in resins, these materials impart durable antistatic properties to such polymers as polyvinyl chloride and the polyolefins.

The type of wax sizes used widely in the paper industry hasn't changed basically since they were first introduced in the early thirties. However, constant improvements in chemical and physical stability have been made so that paper mills are assured of trouble-free operations when using wax sizes. These products are designated as acid and alkaline stable sizes. The acid stable materials are not affected by the addition of common chemicals generally used in paper making, while alkaline stable sizes will precipitate on addition of alum or other di- or trivalent salts. However, alkaline stable sizes have somewhat greater mechanical stability than the acid stable types and they may be used where severe shearing action is encountered.

Michigan Chemical Corporation has assigned tradenames to the company's line of fire retardant products. Tris (2, 3-dibromopropyl) phosphate, formerly marketed as **"Tris"**, has been given the tradename **"Firemaster T23P"**. The product works in such a way as to render a flammable plastic system, such as expanded polystryene, self-extinguishing, the company reports.

Sandox, Inc. offers two new specialty chemicals for use in textile finishing. One of the products, **"Ceranine PN,"** is a cationic softener for polyacrylonitrile fibers. The other, **"Leucophor A"** is termed an improved, acid-stable fluorescent whitener for cellulosic fibers.

Emery Industries, Inc. announces availability—in tankcar quantity—of some new products derived from tall oil. **"Emtall 3330,"** a fractionated tall oil fatty acid, is priced at 5 cents a pound, carload or truckload of drums is 7 cents and less carload in drums is 7½ cents a pound. Price schedule for another new item, **"Emtall 3347,"** distilled tall oil, is the same, while **"Emtall 3344,"** distilled tall oil, is ¼ cent a pound more across the board.

Antistatic Agents

Producers are supplying both durable and non-durable antistatic agents to the trade, with the textile industry taking the bulk of a "modest" volume of business. When applied on the surface (of textiles) most antistats are non-durable. However, durable products are available and are usually utilized with a catalyst or cross linking agent and cured. Treated synthetics, protein fibers and blends show good resistance to washings and dry cleaning.

While obtaining a durable antistat is an optimum condition, some mills may feel it is absolutely necessary only through the spinning and weaving operations. Others may feel that they cannot fold or batch properly without maintaining antistatic activity. Still another important consideration is the fire hazard that may result through lack of antistatic activity.

Other uses developed for antistatic agents are in resins, wax polishes and paper. These products impart valuable antistatic properties to polymers such as polyvinyl chloride and the polyolefins. When incorporated into resins they are considered durable, particularly over a low relative humidity range.

The Textile Chemicals Department of American Cyanamid Company markets **"Aerotex CSN"** and **"Aerotex Antistatic Agent"** for sale to the textile industry, while the Market Development Department of the company handles **"Catanac SP"** (corresponds to **"Aerotex CSN"**) and **"Catanac SN"** for use in plastics and resins, powders, and wax polishes as well as other developing end uses.

Cyanamid points out that a product such as **"Catanac SP"** may serve more than one function in the same application. The compound is an active detergent and "one of the best emulsifying agents of the quaternary ammonium type." The latter property is of particular value where an antistatic quality is a favorable co-result, the company says. **"Catanac SN"** is now supplied by the company as a 50 percent solids, isopropanol-water mixture. The reduction in solids content, from 65 percent, was made primarily in order to facilitate incorporation into resins and to increase ease of handling.

E. I. duPont de Nemours & Co. produces the non-durable antistatic agents, **"Zelec NE"** and **"Zelec NK."** Both were designed for use on textile fibers and yarns that develop static charges during processing, but have also proven valuable in solving other non-textile static problems. **"Zelec NE"** is especially recommended by the company for use in water systems, while **"Zelec NK"** is more compatible in solvent systems. Acid and alkaline stability of both these products is reported adequate for most textile mill operations.

Concentrations most commonly used, range from 0.25 percent to 0.50 percent based on fiber weight. The concentrations used depend on many factors such as the type of fiber, prevailing atmospheric conditions and processing requirements. As with other antistatic agents, the **"Zelec"** compounds function by minimizing the static charge developed on fibers through friction with other surfaces and promoting rapid dissipation of this charge.

Flame Retardants

Michigan Chemical Corporation assigned tradenames to the company's line of fire retardant chemicals. Tetrabromo bisphenol-A is newly designated **"Firemaster BP4A."** Tetrabromo phthalic anhydride becomes simply, **"PHT4,"** while pentabromophenol is **"PB5."** Another fire retardant, formerly called **"Tris"** by the company, has been re-christened **"Firemaster T23P."**

Chemically, **"Firemaster T23P"** contains 68.7 percent bromine with 4.4 percent phosphorus. This gives particularly efficient fire retardancy to expandable polystyrene and other styrene products, polyesters, phenolics, acrylic resins, polyvinyl chloride, epoxies and urethane foams.

Sizings

The types of wax sizes now largely used in the paper industry were first introduced in the early thirties. These materials were all wax and rosin-wax blends and become known as the acid stable grades because of their stability to alum and other papermaking chemicals. Composition of present products is basically unchanged, but have been greatly im-

—Continued on page 57

WHAT'S REPORTED ON HERE

Though coverage in the Trade Name Chemicals & Specialties market report encompasses twenty classes of chemicals, only a few of them are mentioned in this issue. Here's the entire list:

Adhesives, antibacterials and fungicides, antifoaming agents, antioxidants, antistatic agents, blowing agents, catalysts and accelerators, chelating agents, chemically processed oils, emulsions and latexes, enzymes, fatty acid derivatives, feed supplements, filtering materials, ion exchange resins, surfactants, synthetic waxes, textile chemicals, thickening and suspending agents, and ultraviolet absorbers.

If you have suggestions for any additional materials that might be included in this section, write OIL, PAINT AND DRUG REPORTER's Technical Editor, 30 Church street, New York 7.

Agricultural Chemicals

Stocks of some leading agricultural chemicals were decreased substantially during May. As reported by the Bureau of Census, stocks of ammonia, ammonium nitrate, and ammonium sulfate were all well below the levels maintained for the previous month. Material on hand at producing plants, in the case of ammonia, dropped from 143,635 short tons to 88,576 short tons from April to May. Biggest reduction in stocks took place in ammonium nitrate. Stocks at producing plants were more than halved from the 155,872 short tons on hand at the end of April. In the same thirty day period, stocks of nitrogen solutions were reduced by almost 14,000 short tons.

Running counter to this trend was the stocks of superphosphates. Total stocks on hand increased by about 1,000 short tons during May. Within the different grades some differences were noted. Stocks of normal and enriched superphosphate dropped by almost 7,000 short tons, but concentrated superphosphates stocks erased this margin with an increase of almost 9,000 short tons. Stocks of the ammonium phosphates inched downward with stocks at the end of May at 16,596 short tons against the 18,017 short tons on hand at the beginning of the month.

When compared to the level of stocks on hand at the end of May 1959 however, the amount of material on hand this May is in each case well above last year's level. Total stocks of superphosphates for May were at 224,373 short tons compared to the 150,595 short tons on hand for the same month last year. In regard to the stocks of concentrated and normal and enriched, the levels are uniformly above that for May of last year.

A leading agriculture news letter, SCAN, offers this interesting item. Back in 1896, one Leopold Trouvelot was attempting to cross the gypsy moth with silkworms when some of the moths escaped. This lapse in experimental technique might have gone unnoticed were it not for the costly results. Since that time almost $100 million has been spent on gypsy moth control.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100=1949 average)

Last week	Prev. week	Last month	July 24, 1959
109.97	109.97	109.97	111.14

For Current Prices see Page 9

Animal and Plant Foods

Ammonia — Production of anhydrous synthetic ammonia for the months of April and May held about at the same volume for both months. Output for May was 434,043 short tons while production during April was estimated by the Census Bureau at 416,220 short tons. For May of last year, production was 413,134 short tons. The greatest improvement was in relation to the level of stocks. Stocks at producing plants at the end of April was estimated by Census at 143,635 short tons. At the end of May stocks had decreased to 88,576 short tons.

Byproduct liquor (ammonia content) ammonia output for May was 1,348 short tons, down marginally from the reported figure for April of 1,497 short tons. Stocks at producing plants at the end of May were reported at 785 short tons. For the previous month, the level of stocks was estimated at 839 short tons.

Ammonium Phosphates — Census reports that stocks, shipments and production decreased from the volume set the previous month. Stocks at the end of April were 18,017 short tons. At the end of May stocks were reduced to 16,596 short tons.

Production for May was estimated by the Census Bureau at 22,591 short tons or an increase of about 2,000 short tons over April's output. Shipments dropped from the 30,499 short tons in April to 23,245 short tons shipped during May. During May, 1959, 16,316 short tons were shipped. Stocks at the end of May of last year were reported at 9,580 short tons.

Ammonium Nitrate—According to the Census Bureau, production of fertilizer grade ammonium nitrate was 219,387 short tons. During April, production amounted to 231,135 short tons. For May of last year production was almost the same as that for May 1960.

Stocks of ammonium nitrate at producing plants were reported to be at 53,814 short tons at the end of May, a sharp drop for the 143,542 short tons reported on hand at the end of April.

Total production of all grades of ammonium nitrate was 243,550 short tons. For the month of April, production was 255,396 short tons. Again, the big difference was in the status of stocks. Material on hand at the end of April was 155,872 short tons. By the end of May, this figure was more than halved as stocks on hand at producing plants were reported to be at 65,666 short tons.

Animal Proteins—Production of fishmeal during the period of January through April is reported by the US Fish and Wildlife Service to have been about 12 percent lower than the output for the first four months of 1959. For the first four months of 1960, the production was 12,537 tons, for the same period last year production was 14,243 tons.

The Department predicts an unsettled market situation, as production reaches its peak in the third quarter. Large carryover from the 1959 production is expected by the Department to worsen the market situation.

Imports of fish meal through April of this year were 38 percent below those during the same period last year, the Department reports. According to the Department, much of the decline in imports can be attributed to heavy reductions from Canada and "other countries." There were no receipts from Angola which at this time last year had shipped almost 20,000 tons.

The January-April total of fish meal imports for this year was 45,701 short tons. Last year for the same period, 73,536 short tons were shipped.

Nitrogen Solutions—Production of nitrogen solutions during May was 102,916 short tons, or about 4,000 short tons above the previous month's total. When compared to the output for May of last year, when production reached 91,806 short tons, output was improved by about 10,000 short tons.

Stocks at producing plants were decreased from the 40,717 short tons at the beginning of May to 26,081 short tons at the end of the month.

Superphosphate—Stocks on hand at the beginning of May were estimated by the Census Bureau at 223,136 short tons. At the beginning of April, stocks totaled 317,463 short tons. When compared to the amount of material on hand at the beginning of May, 1959 (171,406 short tons), a sizable increase in the level of stocks is noted.

Superphosphate & Other Phosphatic Fertilizer Production

Following are data compiled by the Bureau of Census indicating superphosphates and other phosphatic ferilizer produced and shipped in the United States, July, 1959, through May, 1960. Included are percentage changes. All material is 100 percent P_2O_5 in short tons.

	1960 *Season* *In Short Tons* 100 *Percent* P_2O_5		1960 *Season* *Percentage Change From 1959*	
	Production	*Shipments*	*Production*	*Shipments*
Normal and enriched	1,272,649	650,873	+ 2	— 3
Concentrated	855,434	833,532	+10	+ 1
Other phosphatic fertilizers	332,826	317,896	+26	+21
Total	2,460,909	1,802,301	+ 7	+ 2

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Essential Oils, Aromatics

The dealers in New York who are still offering sandalwood have seen fit to raise the already-high price. Some of them went up as much as $1 per pound on their material. Others, however, discontinued taking orders altogether. Instead of the price at source weakening following the auctions earlier this month, they strengthened, making the per pound price tag out of reach for some regular sandalwood users. Otherwise among the essential oils, Ceylon citronella declined 10 cents per pound with some dealers anticipating still further price reductions; Puerto Rican bay, 55-60 percent material, advanced 5 cents per pound; West Indian bay, 50-55 percent material, advanced 15 cents per pound, and coriander declined 75 cents per pound.

Price Trends

Advanced

Bay, Puerto Rican, 55-60%, 5c. per lb.
West Indian, 50-55%, 15c. per lb.
Sandalwood, $1 per lb.

Reduced

Citronella, Ceylon, 10c. per lb.
Coriander, 75c. per lb.

Comparative Price Indexes

(100=1949 average)

week Last	week Prev.	month Last	1959 July 24,
146.14	146.10	144.86	147.51

For Current Prices see Page 9

Essential Oils

Bay—Puerto Rican 55-60 percent material rose from $2.50 per pound to $2.55 per pound. The 50-55 percent material remains at its previous low, $2.40 per pound with some unofficial reports that a better price may be had on large orders.

The West Indian 50-55 percent material rose in price from $2.35 per pound to $2.50 per pound.

Citronella—News on spot is that Formosa material is firming considerably. Some dealers quote 92 cents per pound but a great many companies are asking as much as $1.05 per pound.

From source comes the unofficial report that there were 3,000 drums of carryover material from 1959. During the first half of 1960, 5,100 drums had been shipped out and during the second half of the year, 5,000 drums are expected to be shipped out.

This means that the total amount of citronella oil produced during 1960 will be only some 7,000 drums. This is a relatively small amount, say the knowledgeable persons and it means that probably the price will continue to firm throughout the remainder of the year. This, however, is speculation.

Ceylon material, on the other hand is reduced in price. From its previous low, $1.10 per pound, it has been reduced to $1 per pound.

It is felt that this is not the lowest the oil will go. Major factors in the Ceylon citronella business predict that the price will soon go below the $1 level.

Coriander—From its previous high, $8.75 per pound, coriander oil has declined to $8 per pound. No particular reason was put forth for the decline.

Dillweed—Some dealers here in New York report that the market is firming. The price, for domestic material, remains at its previous level, $3.25 per pound. Some dealers, however, are asking as much as $4.25 per pound for their material.

Ginger—The spice has firmed since the African political situation has been so inflamed, but as yet, no word of firming on the part of the oil has been heard on spot.

Material is said to be moving in good volume and at a wide variety of prices.

It might be of interest to hot weather sufferers that ginger is particularly popular in tropical countries. Not only does it have a pungent taste and a pleasing aroma, but it serves to cool the body.

The explanation is thus: Ginger dilates the superficial vesicles of the skin which causes an immediate feeling of warmth. But then the sweat glands become very active, resulting in increased perspiration. The end result is a pronounced cooling of the skin.

The essential oil ginger is found primarily in the epidermal tissue of the rhizomes. For this reason, the rhizomes must be peeled carefully.

In Jamaica, where some of the world's finest ginger is produced, it is grown at altitudes ranging between 2,500 to 3,500 feet. Material is harvested from January to May—the most productive time being between February and March.

The roots are gathered, peeled by hand and then dried in the sun. Growers try to avoid storing their ginger more than three or four months because of the likelihood of worms damaging the material. Another worry they have is the likelihood of loss of weight. Temperatures are so high that considerable amounts of weight could be lost by excessive evaporation. For these two reasons, growers try to export the material as soon as possible.

Palmarosa—News from dealers here in New York is that the market is considerably firmer. The low of the range, however, remains at its previous level, $4.45 per pound. Some material is being offered for as high a price as $5.60 per pound.

Patchouli—This market, too, is said to be firming. The low of the range remains at its previous level, $5.50 per pound, but some dealers are asking as much as $6 per pound for their patchouli.

Sandalwood — The cheapest material available on spot is selling for $20 per pound.

Some dealers, however, have gotten out of the sandalwood business. With prices at the $20 level, they say they feel that they cannot afford to stock it.

Since the auctions earlier this month, the price has not weakened as the experts had anticipated. Rather it has strengthened because there was a relatively small amount of wood auctioned.

There may be a real shortage of wood in Mysore, but some people here feel that the Mysore government has deliberately withheld material in order to maintain the present high levels.

The situation is a bad one, especially for perfume compounders who rely on the characteristic sandalwood aroma which gives heaviness or the oriental note to their products.

There is speculation that some compounders who cannot afford to pay the present price for the oil might be forced to turn to other oils—at least until the sandalwood oil prices reach a more realistic level.

Aromatic Chemicals

Benzophenone—According to the United States Tariff Commission, there were 138,000 pounds of benzophenones produced in 1959. Some 151,000 pounds were sold at a price of $165,000 which was a unit value of $1.09 per pound.

Benzyl Acetate—United States Tariff Commission figures indicate that, in 1959, there were 812,000 pounds of benzyl acetate produced domestically. Of this, 795,000 pounds were sold for $400,000 which was a unit value of 50 cents per pound.

Benzyl Alcohol — Figures from the United States Tariff Commission indicate that in 1959, there were 270,000 pounds of benzyl alcohol produced. There were 271,000 pounds sold for $134,000 which had a unit value of 49 cents per pound.

Benzyl Cinnamate — According to the United States Tariff Commission, there were 3,000 pounds of benzyl cinnamate produced in 1959. Of this, 2,000 pounds were sold for $8,000 which had a unit value of $3.17 per pound.

Eugenol — According to the United States Tariff Commission, 203,000 pounds of eugenol were produced in 1959. Of this, 171,000 pounds were sold for $281,000 which made the unit value $1.64 per pound.

Amyl Salicylate — Figures from the United States Tariff Commission indicate that there were 316,000 pounds of amyl

Imports Detained at N. Y.

Week Ended July 15, 1960

Black pepper, 4 bags.
Cassia, 259 bales.
Chillies, 100 bags.
Coriander seed, 300 bags.
Cumin seed, 2 lots, 480 bags.
Fenugreek seed, 220 bags.
Mace, 2 lots, 121 cases.
Nutmegs, 4 lots, 430 bags.

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Essential Oils

salicylate produced in 1959. Of this 344,000 pounds were sold for a total of $212,000 which made the unit value 62 cents per pound.

Methyl Salicylate—According to the United State Tariff Commission, there were 3,442,000 pounds of methyl salicylate produced in 1959. Of this, 3,333,000 pounds were sold for a total of $1,852,000 which made a unit value of 56 cents per pound.

Citral—United States Tariff Commission figures indicate that 80,000 pounds of citral were produced in 1959. Of this, 72 pounds were sold for $191,000 which made a unit value of $2.65 per pound.

Citronellol—Figures from the United States Tariff Commission, there were 370,000 pounds of citronellol were produced in 1959. Of this, 298,000 pounds were sold for $499,000 which makes the unit value $1.67 per pound.

Coumarin — According to the United States Tariff Commission, there were 934,000 pounds of coumarin produced in 1959. Of this, 621,000 pounds were sold for $1,839,000 which makes the unit value $2.96 per pound.

Geraniol — Figures from the United States Tariff Commission, indicate that, in 1959, 361,000 pounds of geraniol were produced. Of this, 195,000 pounds were sold for $45,000 which makes a unit produced in 1959.

Geranyl Acetate — There were 35,000 pounds of geranyl acetate produced in 1959, according to the United States Tariff Commission. Of this 24,000 were sold for $45,000 which amkes a unit value of $1.90 per pound.

Hydroxycitronellal — According to the United States Tariff Commission, there were 320,000 pounds of hydroxycitronellal produce in 1959.

a-Ionone — According to the United States Tariff Commission, there were 26,000 pounds of a-Ionone produced in 1959. Of this 26,000 pounds were sold for $95,000 which makes a unit value of $3.71 per pound.

Linalool — Figures from the United States Tariff Commission indicate that there were 171,000 pounds of linalool produced in 1959. Of this, 134,000 pounds were sold for $417,000 which makes the unit value $1.30 per pound.

Linalyl Acetate—According to the United States Tariff Commission, there were 182,000 pounds of linalyl acetate produced in 1959. Of this, 146,000 pounds were sold for $405,000 which makes a unit total of $2.78 per pound.

Heliotropin—Figures from the United States Tariff Commission indicate that there were 238,000 pounds of heliotropin (Piperonal) produced in 1959. Of this, 244,000 were sold for $579,000 which makes a unit value of $2.37 per pound.

Rhodinol — From the United States Tariff Commission comes the report that there were 9,000 pounds of rhodinol produced in 1959. Of this, 8,000 pounds were sold for $311,000 which makes the unit value $37,74 per pound.

Terpineols — According to the United States Tariff Commission, there were 4,943,000 pounds of terpineols produced in 1959. Of this, 2,703,000 were sold for $698,000 which makes the unit value 26 cents per pound.

Terpinyl Acetate — Figures from the United States Tariff Commission indicate that there were 384,000 pounds of terpinyl acetate produced in 1959.

Ethyl Butyrate—From the United States Tariff Commission comes the word that there were 187,000 pounds of ethyl butyrate produced in 1959. Of this, 172,000 pounds were sold for $113,000 which makes the unit value 66c. per pound.

Seeds and Spices

Cloves—Material remains right around the 37c. per pound mark in spite of the fact that Indonesia, the largest cloves customer, has sharply curtailed its purchases.

Due to economic conditions, the Indonesians felt they could do without cloves which they use to flavor their cigarettes. Such a drastic move might has deflated the market, but, according to spice experts in New York, prices are holding their own because the current crop is said to be much smaller than normal.

News sources say that in both Madagascar and Zanzibar, the crops are small.

Some people, in fact, are of the opinion that prices may rise in the near future.

Ginger—Political uprisings in Africa have been responsible for firming the ginger market. African and Cochin grades are said to be in short supply.

Jamaican material is available, but probably not enough to satisfy all the demand, news sources reported. The new Jamaican crop is not going to be ready for some 9 months.

The tightness is said to have hiked demand for split Nigerian material.

Spot prices advanced a few cents per pound for most all grades.

Pepper—The market saw very little activity last week. Price changes are as follows: Malabar black rose 2c. per pound from 60c. per pound to 62c. per pound; Lampong black rose 2c. per pound from 60c. per pound to 62c. per pound, and Muntok white remained at its previous level, 82c. per pound.

Already, the United States has received some 6,600,000 pounds more this year than during the first 6 months last year.

The reason put forth for this, it is said, is that the trade anticipates shortages between July and October and that people wanted to cover themselves.

Last year, the average amount imported during the months July through October, was 3,000,000 pounds per month.

During 1959, 2,904,000 pounds were imported during January as compared with the 1960 figure, 2,524,000 pounds. In February, 1959, 2,013,000 pounds were imported as compared with 8,173,000 in 1960. In March, 1959, 2,687,000 pounds were imported as compared to 3,870,000 pounds in 1960. In April, 1959, 4,626,000 pounds were imported as compared with 5,890,000 pounds in 1960. In May, 1959, 3,469,000 pounds were imported as compared to 2,264,000 pounds in 1960. In June, 1959, 2,341,000 pounds were imported as compared with 1,800,000 pounds in 1960.

The total for the first 6 months of 1959 was 18,040,000 pounds as compared with the total for the first 6 months of 1960 which is 24,621,000 pounds.

Hooker Gets Deeper

—*Continued from page 5*

Chemical Company in 1955, which became a division of Houston Corporation in 1956.

Hooker indicates interest in further expansion at Houston, but this interest is still in the speculative stage. A spokesman for the company notes that the area's large petrochemical plant complex makes it suitable for production of phosphorus, phosphorus derived products and related materials.

Bids Wanted

Acetone, 59,000 gals.; **Diethylene Glycol Dibutyl Ether**, 58,880 gals.; **Alcohol Isopropyl**, 10,000 gals.; **Methanol**, 16,500 gals.; **Tergitol**, or equal, 9,438 gals. Bid IFB 401-61-02C, July 26. US Atomic Energy Commission, Oakridge, Tenn.

Chemicals, Carbon Tetrachloride, tech., clear, 1 pint, 1,224 bots.; **Castor Oil**, USP, 1 gal., 600 cns.; **Chloral Hydrate**, USP, ¼ lb., 264 bots; **Chloral Hydrate**, USP, 1 lb., 240 bots.; **Chloroform**, USP, not for anesthesia, 1 pint, 7,152 bots.; **Chromium Potassium Sulfate**, tech., 1 lb., chrome alum, 216 bots.; **Cocaine Hydrochloride**, 1 oz., USP, crystals, 228 bots.; **Formaldehyde Solution**, USP, 1 qt., (Formalin), 7,248 bots; **Formaldehyde Solution**, USP, 1 gal. (Formalin) 408 bots.; **Gold Chloride**, USP, reagent grade, 1 gm., 96 tubes. Bid IFB M5-9-61, July 28. **Hydrochloric Acid**, NF, diluted, ¼ pt., 216 bots.; **Hydrochloric Acid**, ACS, 1 pt., 1,848 bots.; **Hydrogen Peroxide**, solution, USP, 3 percent, 42,048 bots.; **Iodine**, USP, ¼ lb., 2,400 bots.; **Lactose**, USP, 1 bl. (milk sugar), 840 bots.; **Magnesium Sulfate**, USP, 5 lbs., 1,320 containers; **Mercury**, NF, 5 lb., 144 bots.; **Mercury Bichloride**, USP, ½ lb., 480 bots.; **Methanol**, ACS, 1 pt., 5,856 bots. Bid IFB M5-10-61, July 28. **Methyl Salicylate**, USP, 7 lb., 348 bots. (this item is garbled); **Nitric Acid**, ACS, 1 pt., 840 bots.; **Paraldehyde**, USP, ¼ lb., 2,592 bots.; **Potassium Bicarbonate**, 1 lb., USP, powder, 648 bots.; **Potassium Chloride**, 1 oz., ACS, crystals, 864 bots.; **Potassium Iodide**, 1 lb., USP, granular, 1,872 bots.; **Silver Iodate, Precipitated**, 50 gm., reagent grade, 108 bots.; **Sodium Bicarbonate**, 1 lb., ACS, 384 bots.; **Sodium Borate**, 1 lb., USP, powder, 480 bots. Bid IFB M5-1061, July 28. Marketing Division for Drugs and Chemicals, VA Supply Depot, Somerville, N. J.

Drugs, Cascara Sagrada Fluid Extract, aromatic, USP, 1 gal., 600 bots.; **Codeine**, 1 oz., NF, 94 bots.; **Codeine Phosphate**, 1 oz., USP, 240 bots.; **Codeine Phosphate**, tablets, 0.03 gm., 100s, USP, hypodermic, 4,224 bots.; **Codeine Phosphate**, tablets, 0.06 gm., 100s, USP, hypodermic, 1,728 bots.; **Digitalis Tablets**, 1 USP unit, 0.1 gm., USP, 100s, 7,104 bots.; **Diphenyhydantoin Sodium Tablets**, USP, 0.1 gm., 100s, 2,736 bots. Bid IFB M5-12-61, August 2. **Ephedrine Sulfate Capsules**, 0.025 gm., 500s, USP, 456 bots.; **Glyceryl Trinitrate Tablets**, USP, 0.6 gm., 100s, hypodermic (nitroglycerin), 3,648 bots.; **Glycyrrhiza Fluid Extract**, USP, 1 pt., (Licorice root extract) 240 bots.; **Hexavitamin Capsules**, NF, 500s, 5,424 bots.; **Histamine Phosphate Injection**, USP, 0.001 gm., 1 ml., 6s, 800 bxs.; **Ipecac Fluid Extract**, USP, ¼ pt., 36 bots.; **Orange Peel Tincture**, sweet, USP, 1 pt., 456 bots.; **Papaverine Hydrochloride Tablets**, 0.1 gm., 100s, 384 bots. Bid IFB M5-13-61, August 2. There is also 11 items listed under Bid No. IFB M5-14-61, same bid opening date. Marketing Division for Drugs and Chemicals, VA Supply Depot, Somerville, N. J.

Graphite, various sizes, 424,065 lbs. Bid IFB 401-61-03C, July 29. US Atomic Energy Commission, Oakridge, Tenn.

Rock Salt, for ice control, type 1, Fed. Spec. SS-S-26, packed in 100 lbs. multiwell bags, 1,000,000 lbs. Bid IFB 33-601-61-2-B, August 1. Contracting Officer, Procurement Division EWMPL, Attn.: R. Keller Building 120, Wright Patterson Air Force Base, Ohio.

Sodium Chloride, 11 items. Bid IFB 14, August 3. Business Service Center, General Services Administration, Bldg 41, Denver Federal Center, Denver 25, Colo.

Trade Name Chemicals

—Continued from page 52

proved with regard to physical and chemical stability so that paper mills are assured of trouble-free operation when using wax sizes.

American Cyanamid Company makes a series of aqueous emulsions of paraffin waxes and paraffin wax-rosin combinations which are sold under the tradenames, **"Alwax"** and **"Waxine"** sizes. These sizings are all readily dilutable with water to concentrations as low as 1 percent or 0.5 percent solids. Regardless of the wax and/or rosin combination, these products are generally classified either as acid or alkaline stable sizes.

The acid stable sizes are not affected by the addition of common chemicals generally used in paper making, as rosin size, starch, alum, clay, etc. Alkaline stable sizes, on the other hand, are extremely sensitive to many electrolytes and will precipitate or floc upon the addition of most chemicals. In a pH range of 7.5 to 10, these types of emulsions are stable provided strong electrolytes are absent.

A further classification of the **"Alwax"** and **"Waxine"** sizes is made in designating them as crystalline paraffin waxes and micro-crystalline or amorphous waxes. The micro-crystalline waxes differ from crystalline waxes in that their crystal size is smaller and their structure is different. The micro-crystalline waxes are tougher, more flexible and have higher melting points and tensile strengths. Although they may have higher melting points, these waxes are usually softer and greasier to the touch than the harder, lower melting point crystalline waxes.

In general, a beater type of application is used with these materials. Beater applications are most desirable since they permit moderate amounts of chemical additives without undesirable surface slipperiness which may cause handling and winding difficulties. Where rosin size alone is being used, common practice is to decrease the percentage of total size 30 percent to 50 percent and replace with a mixture of 1 part **"Alwax"** or **"Waxine"** solids to 4 parts rosin size solids.

Nopco Chemical Company manufactures the **"Nopco 1055"** series, which are all-wax sizes. These products are compatible with most papermaking chemicals such as solutions of starch, polyvinyl alcohol, sodium alginate, rosin size, alum, casein, anionic wet strength resins, and other chemicals. **"Nopco 1155"** sizes are rosin-wax dispersions having the same general characteristics of the **"1055"** series. Ratio of rosin to wax varies from 25/75 to 75/25. The addition of unsaponified rosin modifies the characteristics of the wax so as to impart to paper or board properties not obtainable with the all-wax sizes. Nopco points out that although rosin-wax sizes will tolerate mild alkaline conditions, it is advisable to avoid prolonged contact with alkaline solutions. **"Nopco 1255"** sizes are all-wax alkaline stable sizes. They are precipitated by alum or other bi- or trivalent salts. The mechanical stability of these sizes is somewhat better than the acid stable types and they may be used where severe shearing action is encountered.

Ultraviolet Absorbers

Ultraviolet absorbers function to exclude the destructive uv portion of sunlight and thus prevent a primary cause of deterioration in a wide variety of useful items. The bulk of uv light from the sun is screened from the earth by ozone in the atmosphere, but the small amount that does penetrate to the earth's surface can cause dyes to fade, rubber to stiffen, textiles weaken, paper deteriorates and plastics yellow and become brittle. In order to curb these undesirable effects, a material which absorbs ultraviolet light is incorporated to protect other materials.

A wide variety of compounds have good absorbtivity in the ultraviolet range, but very few are available which absorb strongly and at the same time are stable to light. Of the various products examined, the benzophenones have been found quite effective and the 2-hydroxybenzophenones are reported of especial interest.

The position of the hydroxyl group in the benzophenone series has been found to be of great importance. For example, 4-hydroxybenzophenone is a weak absorber, transmitting over 90% of uv light at a concentration of 25 mg. per liter in toluene in a 1 cm. cell, while under the same conditions, 2-hydroxybenzophenone transmits only about 25 percent of uv light at the wavelength of maximum absorption. This means that the ortho compound is about 15 times stronger as a uv absorber than the para compound. However, constant evaluation of other compounds is being made to discover new and useful uv absorbers.

General Aniline and Film Corporation is marketing **"Uvinul N-35"** and **"Uvinul N-38"** which, the company reports, are the first of a new family of ultraviolet absorbers that do not contain aromatic hydroxyl groups. The products are substituted acrylonitriles, supplied in 100 percent form as white crystalline powders.

Suggested uses for these products include alkaline systems, such as butadiene-styrene latex, melamine-formaldehyde, urea-formaldehyde, epoxy-amine, and nylon formulations. The new absorbers are also effective with light-colored, clear systems, such as polyvinyl chloride, linear and crosslinked polyester, nitrocellulose lacquer and alkyd formulations as well as other clear coatings.

According to GAF, **"Uvinul N-35"** and **"N-38"** are more effective ultraviolet light absorbers for nitrocellulose lacquers than the conventional absorbers. The products effectively protect the lacquers against deleterious effects of uv light without contributing adverse color to the coatings. As little as 2 percent of these materials, based on nitrocellulose effectively protects the lacquers for 300 hours exposure to a sunlamp, the company reports.

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AMBER OIL—5 dms, Kline & Co, Puerto Cortes
AMMONIUM CARBONATE—62 dms, American Agricultural Chemical Co, Glasgow
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ANILINE DYES—15 dms, L & R Organic Products Co, Glasgow
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ANNATTO SEED—200 bgs, Marcel Calvet, Guayaquil
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ANTIMONY OXIDE—90 bgs, Indussa Corp, Rotterdam
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1,666 bgs, Irving Trust Co, Port Sudan
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CARNAUBA WAX—93 bgs, Strahl & Pitsch, Salvador
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CASSIA—79 bls, Ludwig Mueller, Rotterdam
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324 tons, East Asiatic Co, Bombay
302 tons, Baker Castor Oil Co, Rotterdam
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162 bgs, M J Golombeck, Bombay
CHESTNUT EXTRACT—300 bgs, Tac Tannins & Chemicals Inc, Marseille
CINNAMON QUILLS—10 bls, Curacao Trading Co, Colombo
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COCONUT OIL—375 tons, American Trust Co, Cebu
200 tons, Procter & Gamble Co, Rotterdam
CODLIVER OIL—84 dms, Arista Oil Products Corp, 145 dms, Peder Devold Oil Co, Bergen
CODLIVER OIL EXTRACT—17 cs, Penson & Co, Rotterdam
COPAIBA BALSAM—6 dms, H Weber & Co, Manaus
COPAL GUM—84 bgs, O G Innes Corp, Matadi
CORIANDER SEED—300 bgs, Casablanca
CREAM OF TARTAR—100 cks, Wm E Martin & Sons, Rotterdam
CRESYLIC ACID—25 tons, Van Oppen & Co, Liverpool
CUMIN SEED—250 bgs, C M Van Sillevoldt, Khorramshahr
300 bgs, Curacao Trading Co, Khorramshahr
100 bgs, Middle Town & Co, Khorramshahr
CYANUR CHLORIDE—1,000 dms, Geigy Chemical Corp, Hamburg
DEGRAS—33 dms, N I Malstrom, Rotterdam
104 dms, H A Gogarty, Yokohama
3 dms, Olympic Shipping Co, Hull
30 bbls, Nehls & O'Connell, Hamburg
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DEXTRIN—530 bgs, Morningstar Paisley Inc, Rotterdam
140 bgs, Manufacturers Trust Co, Rotterdam
DICALCIUM PHOSFATE—2,204 bgs, Wessel Duval & Co, Antwerp
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GYPSUM, CRUDE—31,377 tons, U S Gypsum Co, Hantsport
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195 bgs, Colony Import & Export Corp, Bombay
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248 bgs, Stein Hall & Co, Bombay
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LAVANDIN OIL—3 cks, Brown Bros, Cannes
5 cks, Charabot & Co, Marseille
5 dms, Coutin Associates, Marseille
LAVENDER OIL—3 cs, Coutin Associates, Marseille
LAUREL LEAVES—48 bls, Izmir
LEMON OIL—1 dm, Ungerer & Co, Vera Cruz
2 dms, D W Hutchinson & Co, Vera Cruz
3 dms, Lo Curto & Funk, Vera Cruz
28 dms, Canada Dry Corp, Hamilton
5 cs, Messina
LEMONGRASS OIL—28 dms, P R Dreyer, Cochin
56 dms, Lo Curto & Funk, Cochin
6 dms, Ungerer & Co, Cochin
23 dms, National City Bank, Cochin
13 dms, Lo Curto & Funk, Puerto Barrios
28 dms, International Flavors & Fragrances Inc, Cochin
6 dms, Lautier Fils Inc, Cochin
LIME OIL—3 dms, P H Petry, Port Au Prince
4 dms, Port Au Prince
LITHARGE—368 dms, Eagle Picher Co, Tampico
LIVERMEAL—529 bgs, Velleman Corp, Rotterdam
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550 cs, Brown & Williamson Tobacco Corp, Santos
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OCHRE—448 bgs, Whittaker Clark & Daniels, Mossel May
1,120 bgs, Landers Segal Color Co, Mossel Bay
OLIBANUM GUM—100 bgs, Frtzsche Bros, Aden
OLIVE OIL—245 dms, National City Bank, Seville
49 dms, Bankers Trust Co, Seville
50 dms, Societe General, Seville
50 dms, Swiss Credit Bank, Seville
289 dms, Swiss Credit Bank, Malaga
OURICURY WAX—111 bgs, M Argueso & Co, Salvador
PALM OIL—330 tons, Balfour Guthrie, Boma
194 tons, Balfour Guthrie, Matadi
PALMKERNEL OIL—295 tons, E F Drew & Co, Matadi
199 tons, Balfour Guthrie, Matadi
603 cs, B M T Commodity Corp, Rotterdam
PAPAIN—77 cs, Bemo Shipping Co, Mombasa
100 cs, I Levine, Colombo
PAPAYA LEAVES—100 bls, Meer Corp, Colombo
PAPRIKA—200 bgs, Casablanca
PEPPER, BLACK—756 bgs, Ludwig Mueller, Cochin
140 bgs, C Czarinkow, Singapore
210 bgs, C M Van Sillevoldt, Singapore
560 bgs, Singapore
PIMENTO—40 bgs, Kingston
PIMENTO LEAF OIL—1 dm, Import Export Corp of Baltimore, Kingston
POPPYSEED—300 bgs, C M Van Sillevoldt, Rotterdam
100 bgs, Rotterdam
100 bgs, Izmir
POTASH, CAUSTIC—320 dms, B T Chemco Inc, Gothenburg
4 cs, B T Chemco Inc, Gothenburg
POTASSIUM GUAIACOL SULFONATE—1 dm, Hudson Shipping Co, Antwerp
POTASSIUM PERCHLORATE—100 dms, Ugine Industries, Havre
200 dms, Orlex Dyes & Chemical Corp, Gothenburg
POTATO STARCH—100 bgs, Rotterdam
PROTEIN ALBUMINATE—10 dms, Chemo Puro Manufacturing Corp, Yokohama
PSYLLIUM SEED—200 bgs, Meer Corp, Bombay
PSYLLIUM SEED, HUSKS—240 bgs, Prentiss Drug & Chemical Co, Bombay
694 bgs, Meer Corp, Bombay
487 bgs, Parke Davis & Co, Bombay
PYRENE—4 cks, Terra Chemicals Inc, Rotterdam
PYRETHRUM EXTRACT—50 dms, Marine Trust Co, Mombasa
50 dms, Prentiss Drug & Chemical Co, Mombasa
40 dms, S B Penick & Co, Mombasa
60 dms, Mombasa
RICE STARCH—300 bgs, Manhattan Adhesives Corp, Bremen
224 bgs, Stein Hall & Co, Bremen
ROSE HIP POWDER—5 dms, Barth Levitt Products, Gothenburg
ROSEMARY OIL—7 dms, L A Champon & Co, Barcelona
SAGE OIL—1 cs, Coutin Associates, Barcelona
SASSAFRAS OIL—40 dms, Ernst Roth & Co, Rotterdam
SCAMMONY ROOT—61 bgs, F D Keller & Son, Vera Cruz
SEEDLAC—750 bgs, Calcutta
SENNA—60 bls, Meer Corp, Port Sudan
SENNA LEAVES—200 bls, Meer Corp, Tuticorin
SENNA PODS—25 bls, Meer Corp, Tuticorin
SESAME SEED—150 bgs, Levy & Levis Co, Corinto
187 bgs, Louis Furth, Piraeus
SESAME SEED, HULLED—650 bgs, Levy & Levis Co, Corinto
700 bgs, Archibald & Kendall, Corinto
750 bgs, Louis Furth, Corinto
300 bgs, R J Spitz, Corinto
600 bgs, Nieman Bros, Corinto
150 bgs, Ideal Trading Co, Corinto
200 bgs, C M Van Sillevoldt, Corinto
100 bgs, Hismoco American Co, Corinto
150 bgs, International Commodities Corp, Corinto
200 bgs, Sokol & Co, San Juan del Sur
SHELLAC—50 bgs, Mantrose Corp, Bremen
SODA, CAUSTIC—540 dms, B T Chemco Inc, Gothenburg
SODIUM ALGINATE—25 dms, Stein Hall & Co, Glasgow
SODIUM CYANIDE—1,320 dms, Philipp Bros Chemicals, Rotterdam
170 dms, Chemical Manufacturing Co, Glasgow
350 dms, Ugine Industries, Havre
SODIUM GLUTAMATE—400 cks, International Minerals & Chemical Corp, Havre
SODIUM LAURYL SULFATE—200 cks, Rohner Gehrig, London
SODIUM PERBORATE—220 bgs, Philipp Bros Chemicals, Rotterdam
SODIUM SILICOFLUORIDE—300 bgs, Copenhagen
STARCH—900 bgs, Morningstar Paisley Inc, Rotterdam
1,000 bgs, Stein Hall & Co, Rotterdam
STRYCHNINE SULFATE—1 cs, Frank Samuel & Co, Southampton
SULFUR, CRUDE—4,299 tons, Coatzcoalcos
TALC—800 bgs, Whittaker Clark & Daniels, Bordeaux
875 bgs, L A Salmon & Bro, Bordeaux
6,080 bgs, Charles Mathieu, Genoa
TAPIOCA FLOUR—4,000 bgs, Morningstar Paisley Inc, Itajai
TARA POWDER—150 bgs, Callao
TARTARIC ACID—1,700 bgs, Leonhardt & Brush, San Feliu de Guixols
THALLIUM SULFATE—2 cs, Hudson Shipping Co, Bremen
6 cs, Hudson Shipping Co, Hamburg
THEOPHYLLINE—10 cks, Havre
THYME LEAVES—100 bgs, M J Golombeck, Marseille
TITANIUM DIOXIDE, ANATOSE—800 bgs, Nylos Trading Co, Genoa
TOLU BALSAM—4 dms, George Lueders & Co, Puerto Barrios
TRAGACANTH GUM—8 cs, Khorramshahr
TRICHLOROETHYLENE—765 dms, International Selling Corp, Marseille
200 dms, Leghorn
TUNG OIL—60 tons, American Metagraph Co, Buenos Aires
435 tons, Buenos Aires
TURMERIC—21 bgs, Kellys America Ltd, Kingston
127 bgs, Cochin
ULTRAMARINE BLUE—385 bgs, Whittaker Clark & Daniels, Hull
VANILLA—36 dms, Zink & Trieste, Marseille
VANILLA BEANS—10 cs, Gillespie & Co, Cristobal
VEGETABLE OIL—20 dms, Peder Devold Oil Co, Rotterdam
VETIVER OIL—2 dms, Port Au Prince
VINCA ROSEA LEAVES—166 bls, Meer Corp, Madras
WATTLE BARK—1,068 bgs, Hammond & Carpenter, Durban
WAX—200 bgs, Hostawax Co, Bremen
WHEAT GLUTEN—34 bgs, Griffith Lab, London
WITHERITE—224 tons, E I Dupont De Nemours & Co, Middlesbrough
ZINC OXIDE—800 bgs, Pigment & Chemical Co, London
1,440 bgs, Imperial Paper & Color Corp, Vera Cruz
1,323 bgs, Smith Chemical & Color Co, Havre

Los Angeles

AGAR—20 cs, M Moorhead & Co, Hamburg
CASEIN—279 bgs, J R Spellacy, Melbourne
COPRA—500 tons, Pacific Vegetable Oil Corp, Manila
300 tons, Procter & Gamble Co, Cebu
500 tons, Procter & Gamble Co, Dumaguete
300 tons, Procter & Gamble Co, Nasipit
DAMMAR GUM—70 bgs, O G Innes Corp, Singapore
DEXTRIN—30 bgs, Stein Hall & Co, Rotterdam
EARTH COLORS—220 bgs, Castelazo & Associates, Amsterdam
135 bgs, Naftone Inc, Bremen
MATTE TEA—98 cs, Hathaway Allied Products, Paranagua
NAPHTHA—32,194 bbls, Shell Oil Co, Punta Cardon
13,252 bbls, Powerline Oil Co, Aruba
PAPRIKA—650 bgs, Balfour Guthrie, Antwerp
PIMENTO—48 bgs, Cristobal
POTASSIUM PERMANGANATE—50 dms, Los Angeles Chemical Co, Manchester
SODIUM BICARBONATE—1,187 bgs, C M C Chemicals, Liverpool
499 bgs, C M C Chemicals, Manchester

Philadelphia

ANTIMONY OXIDE—450 bgs, National Lead Co, Glasgow
653 bgs, Glasgow
ASBESTOS FIBER—400 bgs, Central Asbestos Co, Port Elizabeth
600 bgs, Phila National Bank, Lourenco Marques
3,200 bgs, Keasby & Mattison, Lourenco Marques
CALCIUM CARBONATE—5,880 bgs, Pluess Stauffer, Antwerp
1,600 bgs, Antwerp
CORN STARCH—400 bgs, Geismar & Co, Bremen
CRESYLIC ACID—200 dms, Rotterdam
DICALCIUM PHOSFATE—960 bgs, J H Schroder, Antwerp
GLUE—400 bgs, First National Boston, Hamburg
GRAPHITE—750 bgs, Asbury Graphite Mills, Tamatave
GYPSUM, CRUDE—7,053 tons, U S Gypsum Co, Hantsport
IODINE, CRUDE—60 kgs, Phila National Bank, Yokohama
IRON OXIDE—800 bgs, C K Williams Co, Malaga
LICORICE ROOT—4,092 bls, MacAndrews & Forbes, Kyllini
MAGNESITE—1 ton, Lisbon
MENTHOL—125 cs, Vick Chemical Co, Santos
60 cs, Bankers Trust Co, Santos
MONTAN WAX—10 bgs, Hamburg
OLIVE OIL—50 dms, Orlando Corp, Malaga
OLYEL ALCOHOL—31 dms, Nagoya
43 dms, Yokohama
OSSEINE—408 bgs, Antwerp
QUEBRACHO EXTRACT—1,056 bgs, First National Boston, Buenos Aires
SODIUM HEXAMETAPHOSFATE—300 bgs, Rotterdam
SODIUM SILICOFLUORIDE—600 bgs, Riches Nelson, Rotterdam
TALC—550 bgs, Whittaker Clark & Daniels, Bordeaux
TAPIOCA FLOUR—3,000 bgs, Brown Bros, Itajai
TETRAMETHYL THIURAM DISULPHIDE—90 bgs, Riches Nelson, Antwerp
VANILLA BEANS—22 cs, Zink & Trieste, Tamatave
90 cs, Zink & Trieste, Tampico
27 cs, Tamatave
WATTLE BARK—1,081 bls, Hammond & Carpenter, Durban
WATTLE EXTRACT—1,088 bgs, International Products Corp, Durban
1,432 bgs, Olson Importing Co, Beira

San Francisco

CELLULOSE EXTRACT—200 bgs, Gothenburg
COCONUT OIL—300 tons, Procter & Gamble Co, Manila
COPRA—1,000 tons, Cargill Inc, Medina
1,300 tons, Cargill Inc, Cebu
670 tons, Pacific Vegetable Oil Corp, Manila
500 tons, Cargill Inc, Iloilo
500 tons, Pacific Vegetable Oil Corp, Cebu
DICALCIUM PHOSFATE—1,102 bgs, J H Schroder, Antwerp
GELATINE—55 bbls, Colonet Chemical Co, Antwerp
GINGER—112 bgs, B C Ireland, Cristobal
LIVERMEAL—399 bgs, International Packers Ltd, Buenos Aires
PAPRIKA—50 bgs, West Coast Spice Co, Genoa
PEPPER, BLACK—60 bgs, H M Newhall & Co, Salina Cruz
QUEBRACHO EXTRACT—100 bgs, Barkey Importing Co, Buenos Aires
1,000 bgs, International Products Corp, Buenos Aires
SESAME SEED—120 bgs, Hismoco American Co, Corinto
100 bgs, W R Grace & Co, Corinto
750 bgs, B C Ireland, Corinto
100 bgs, Lastreto Phillips Co, Corinto
400 bgs, Archibald & Kendall, Corinto
500 bgs, H M Newhall & Co, Corinto
TALC—1,000 bgs, Charles Mathieu, Genoa
TAPIOCA FLOUR—1,344 bgs, Morningstar Paisley Inc, Bangkok
5,486 bgs, H M Newhall & Co, Kohsichang
TUNG OIL—98 tons, Internatio Rotterdam, Buenos Aires
157 tons, Pacific Vegetable Oil Corp, Buenos Aires
VANILLA BEANS—112 cs, Marseille

Oils, Fats and Waxes

Stronger tone featured the crude coconut oil market and shipments were lifted ½ cent per pound because of the improved European demand for copra. Trading in the latter was fairly active and offers for shipment were scarce and higher. Demand for edible oils was slow. Cottonseed and soybean oils were maintained at former levels, while corn oil was easier, off ¼ cent per pound. Peanut oil also was weaker, dropping ½ cent for prompt delivery.

Conditions in tallow and grease were quiet, but the market remained steady at prevailing quotations. Some export business in tallow took place at private terms. Offerings were not liberal and well held. Cash lard was unchanged but maintained the sharp advance of the previous week.

Linseed oil continued in good request against existing contracts while a fair demand was noted for actual requirements. Prices were unchanged and steady at the recent drop of ½ cent per pound. Tung oil trading was restricted to prompt needs at current quotations. The castor oil market remained steady and unchanged, reflecting the firmness of primary markets. Demand continued light, chiefly for actual needs. Oiticica oil was quiet, with sellers maintaining prices at current levels. Palm oil was quiet, but a steadier tone prevailed in the market because of political disturbances in the African Congo which may eventually affect the arrival of replacements. Production of menhaden oil has increased with the improvement of fishing on both the Gulf and eastern coasts. Crude menhaden oil was quiet, but producers continued to hold at prevailing quotations.

Oilmeals were easier for prompt delivery. Soybean meal closed steady regaining early declines. Extracted linseed meal was off 50 units per ton and expeller $1.50 per ton.

World production in 1960 of oils and fats was forecast at 500,000 tons by J. C. A. Faure, at the International Association of Seed Crushers Congress, London. Western Europe output was expected to increase 365,000 tons because of last year's good olive oil crop. As a consequence, European imports of fats and oils in 1960, were likely to be no more than 4.3 million tons or about 120,000 tons less than last year. U.S. production was likely to be 215,000 tons higher and would no doubt have to find new outlets for surpluses.

India's needs are rising rapidly, while her domestic production is lagging and India might well become a net importer providing useful scope for public law 480 allocations—dollar aided exports.

World exports of fats and oils in 1960 were estimated by Mr. Faure, 112,000 tons greater than last year, at 7,885,000 tons a new record high level.

Price Trends

Advanced

Coconut oil, ½c. per lb.
Copra, $7.50 per ton.

Reduced

Corn oil, crude, ¼c. per lb.
Refd., ¼c. per lb.
Linseed meal, expeller, $1.50 per ton.
extracted, 50c. per ton.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.

Comparative Price Indexes

(100=1949 average)

Last week	Prev. week	Last Month	July 24, 1959
107.37	107.69	112.52	113.88

For Current Prices See Page 9

Vegetable Oils

Castor—Business was reported limited to actual needs. No. 1 Brazilian was unchanged at 18¾c. to 19c. per pound, tankcars, New York, prompt delivery, according to seller. Domestic grades were maintained at former levels.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

	Pounds	
	Castor Beans	Castor Oil
Last week	165,000	1,916,000
Previous week	.....	460,000
Corresponding week, 1959	.....	2,812,000
Total this year	3,342,450	52,460,000
Corresponding period, 1959	15,572,950	51,226,000

Coconut—Crude was firmer, reflecting active European demand for copra, which advanced that market. Oil was raised to 13½c. per pound, tankcars, f.o.b. Pacific coast, July-August delivery. The New York market was steadier and quoted at 15¼c., tankcars, for prompt delivery.

Corn—Trading was quiet. Crude was easier and sold at 11¼c. per pound, tankcars, f.o.b. mills, prompt shipment. Refined oil declined to 14.98c., tankcars, New York basis.

Cottonseed—Futures market was dull and featureless last week on New York Produce Exchange. Trading was light chiefly in the September delivery. Fluctuations were narrow and prices closed practically unchanged for the period. Trade interests absorbed September on a scale down and sold deferred months. July tenders increased 95 and the total for the month was 287 contracts. Cash oil was quiet. Refined salad was inactive and quoted at 13c. per pound, tankcars, New York for prompt delivery.

Shipments of cottonseed oil in June under 480 were indicated at 867 metric tons by the Department of Agriculture bringing the total to 66,157 tons for the period from July 1959-June 1960 inclusive.

Old crop crude oil was inactive and nominal at 10⅛c. per pound, tankcars, southeast and Valley and 9¾c., Lubbock and Waco. New crop oil was sold at 9⅝c. in Texas for second half August and was offered at 9¾c., Valley and 10c., Alabama-Georgia for late August and September delivery.

Linseed—Moderate demand was noted for nearby requirements. Withdrawals against existing orders have been reduced by vacations, shutdowns, but were up to seasonal volume. Prices were steady at 12.70c. per pound, tankcars, f.o.b. Minneapolis, July-September delivery and 13.81c., f.o.b. New York.

Oiticica—Demand lagged, while deliveries against contracts were fairly active. Tankcars were unchanged at 14c. per pound, New York, prompt delivery. Drums ranged from 16c. to 16½c., spot, as to quantity.

Olive—Trading was reported slow on spot and for shipment from primary sources. Spanish oil for shipment was unchanged at $55 to $56 per 100 kilos, drums, f.o.b. ports, as to seller. While demand for spot stocks was slow, the market remained unchanged at $2.30 to $2.40 per gallon, drums, duty paid, according to quantity and quality.

Palm—Business was slow. Drums were unchanged at 13.90c. to 14.90c. per pound spot, as to quantity and 11½c. for tankcars.

Peanut—Crude was quiet, and lower. Offerings were reduced ½c. to 16¼c. per pound, tankcars, f.o.b. mills, prompt delivery. Refined oil decined to 19½c. tankcars, New York basis.

Interim price support levels by types and areas for 1960-crop peanuts were announced last week by the Department of Agriculture. These levels are based on the minimum national average support of $201.24 per ton announced in advance of planting time. Officials explained that average support levels will permit operations to be placed in effect promptly for the 1960 crop pending determination of the final rates on the basis of the August parity prices to be released July 29 and the supply situation as affected by the 1960 estimated production shown by the August crop production report to be released Aug. 10.

The average support by type per ton of 1960 quota peanuts related to the $201.24 per ton announced are: Virginia type, $213.93; Runner type, $188.08;

Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, July 22, follow:

	Sales	High	Low	Close
		Cents per Pound		
Sept.	336	11.61	11.41	11.54S
Oct.	73	11.56	11.38	11.49@11.51
Dec.	75	11.49	11.30	11.43S
March	5	11.56	11.43	11.53@11.56
May	6	11.60	11.48	11.48@11.55
July	5	11.55	11.48	11.55S
Sept., 1961	2	11.50	11.50	11.45 Bid

Total sales and switches, 502 contracts.

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TYPICAL ANALYSIS

Sp. Gr.	.8708
Gravity, °API	31.0
Weight, Lbs/Gal	7.251
Color	30+ Saybolt
Distillation	Range 0.8°C
Paraffins	.04%
Acid Wash Color	Less than No. 1 Standard
K. B., Toluene	105
Flash TCC	46°F
Mixed Aniline Point	50°F
Acidity	No free acid
Sulfur	No H_2S or SO_2 or Thiophene

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Oils, Fats and Waxes

Southeastern Spanish type, $204.36; and Southwestern Spanish type, $197.61. If a change is made in the national average level of support, upward adjustments will be made in approximately equal amounts for all types.

Soybean—Crude remained steady, despite light trading. Nearby oil was quoted at 9c. per pound, tankcars, f.o.b. Decatur, unrestricted with bids ⅛c. less. Refined salad was quoted at 11c. per pound, tankcars, New York, prompt delivery.

United Arab Republic was reported to have purchased 3,300 tons of soybean oil for prompt shipment last week.

Trading in the new soybean oil futures contract began on the New York Produce Exchange last Monday, July 18. The new contract is for 60,000 pounds, the same as the old contract, f.o.b. New York City instead of Decatur, Ill.

Soybean Oil Futures

Sales and prices of crude soybean oil futures in tankcars (60,000 pounds) on the New York Produce Exchange for the week ended Friday, July 22, follow:

	Sales	High	Low	Close
		——Cents per Pound——		
Oct.	5	9.18	9.10	9.27@9.30
Dec.	8	9.10	9.02	9.17@9.18
March	7	9.09	9.06	9.19@9.20
May	1	9.08	9.08	9.16@9.19
July	1	9.08	9.08	9.16@9.18
Sept., 1961	3	9.05	9.03	9.10@9.15

Total sales and switches, 25 contracts.

Exports of soybean oil in June under PL 480 were reported at 68,449 metric tons by the Department of Agriculture, bringing the total to 272,004 tons during July 1959-June 1960 inclusive.

Tung—Trading was reported spotty. Imported oil was offered at 23¼c. per pound, tankcars, New York for prompt delivery. Drums were unchanged at 24¾c. to 25¼c., spot, according to quantity. Domestic oil was maintained at 22½c. per pound, tankcars, July shipment and ⅛c. higher for August.

Miscellaneous

Cocoa Butter—Market was quiet and steady ranging from 57½c. to 62c. per pound, spot, depending upon quantity.

Copra—Trading improved with sales at $180 per ton c.i.f. Pacific coast, prompt shipment and was raised to $185.

Flaxseed—Bids were raised 2c. to $2.85 per bushel for cash flaxseed and transactions dwindled on the heels of recent sizable bookings of new crop. Crushers apparently have taken care of nearby needs in previous trades and attention was centered on new crop developments. Trades in the spot market were nil, while to-arrive bookings totaled 14 cars and 5,000 bushels in trucklots. Arrivals for all accounts amounted to 33 cars (3 to C.C.C.), against 128 a year ago. Shipped were 15 cars, against 20 last year.

Flaxseed crushed totaled 998,666 bushels in June compared with 1,086,000 in May it was reported by the National Flaxseed Processors Association. Total crushed August to June inclusive amounted to 19,515,480 bushels.

Fats and Greases

Greases—While trading was light, this market remained unchanged and steady. Offers were not liberal and closely held. Choice white was quoted at 7c. to 7⅛c. per pound, tankcars, delivered and yellow from 5⅛c. to 5¼c.

Lard—Market remained steady at recent sharp advance. Cash lard was quoted at 11.70c. per pound, drums, Chicago.

Tallow—Buying interest was restricted to actual needs. Prices were without change and steady. Offers were light and well held. Export business was reported fairly active with bulk lots moved at private terms. Bleachable fancy was quoted at 5⅞c. per pound, tankcars, delivered; prime, 5⅝c.; special, 5½c.; guaranteed fancy, 6⅛c. to 6¼c. and No. 1, 5⅛c. to 5¼c., same basis. Export interest was fair. Guaranteed fancy was unchanged at 6½c. per pound, bulk, f.o.b. and 1c. higher for drums, f.a.s.

Cake and Meal

Cottonseed Meal—Trading was slow. Limited stocks of old crop meal were more or less nominal. Meal, 41 percent was quoted at $58 per ton, sacked, Memphis and $64, Georgia-Carolina area. New crop meal will start to move late August and September.

Linseed Meal—Excellent demand persisted for deferred deliveries in this market, additional moderate quantitities booked at $51 a ton for September-December. Slight increase developed in spot needs, reflected in sizable truck tonnage. Prices were unchanged to 50c. lower. Withdrawals against old contracts were at an active pace. Extracted meal, 34 percent, was quoted $52 to $52.50 a ton, bulk, in carlots, f.o.b., Minneapolis, for prompt delivery. Old process meal dropped $1.50 to $58.50, July-September.

Peanut Meal—Production continued light and was absorbed as it became availavle for domestic and export delivery. Old process was quoted at $57 per ton, sacked and solvent, $52, f.o.b. mills.

Soybean Meal—Quiet prevailed in this market, prices drifting slightly lower but regained early loss and closed unchanged. Formula feed manufacturers held purchases to nearby needs and indications were that inventories were low. Supplies of meal were ample. Southwestern markets displayed stronger undertone, most other areas marking time. Meal for unrestricted billing was unchanged, other markets about steady. Meal, 44 percent was held at $50 per ton, unrestricted, bulk, Decatur, for prompt shipment.

Fish Oils

Cod—Buying interest was light, chiefly for forward delivery. Some business was reported this season's oil at 7¼c. per pound, bulk, Gloucester, Mass. Shipments of new production were due to start in August. Last season's production has been practically cleaned up.

Menhaden—Trading in crude was confined to domestic needs for nearby delivery. Export interest was reported quiet. Tankcars were maintained at 6¼c. per pound, tankcars, f.o.b. works. Fishing was reported improved in all locations. Refined oil was steady. Light pressed was held at 9½c. per pound, tankcars, New York basis.

Production of fish oils amounted to 442,941 gallons during January through April, according to Fish and Wildlife Service, 25 percent lower than 588,895 gallons produced during the same period. Exports, however, were larger totaling 34,764,000 pounds against 27,088,000 pounds for the same time last year. Northern Europe took practically all the fish oil exported during this period. The wholesale price of menhaden oil dropped steadily since November 1959 and in June reached the low of 6¼c. per pound, bulk, f.o.b. works.

Waxes, Vegetable

Despite the slow consuming demand for carnauba grades, the local market remained steady, because of the strength of the Brazilian market. Offers for shipment continued scarce and firmly held due to the government absorbing wax at floor prices under the price support program. No. 3 Ceara crude was quoted at 73c. to 74c. per pound, and Parnahyba, 75c. to 76c., spot, as to quantity. Yellow, No. 1 Ceara was unchanged at $1.02 to $1.03 per pound spot and Parnahyba, $1.03 to $1.05, same basis.

Supply situation in candelilla has moderately improved, on spot. The bulk of increased imports continued to be absorbed against contracts. Last week about 1,000 bags of crude arrived at New York. Prices were steady at the recent decline. Crude was held at 55c. to 58c. per pound, spot, as to seller and qauntity. Refined ranged from 60c. to 63c., same basis.

Firmness of crude beeswax kept the market steady. Offers for shipment were scarce and quoted at higher levels. Trading was slow. Stocks on spot were not heavy, but adequate to meet current demand. Refined grades were unchanged and steady.

Dow Canada Moves

—*Continued from page 4*

Bechtel, Ltd. The plant is expected to be in production by mid-1961.

As a spokesman for Dow sees it, the new propylene oxide and glycol operation will be more a stimulus to the Canadian market for those products than a response to it.

"The Canadian market is hardly large enough to support such production," he says, "but our raw material position and our position in the glycols markets have moved us into this. We are in hopes that these markets will develop more rapidly with ample Canadian production."

Output from the polypropylene unit is expected to find its way into markets for films and fibers. Dow recalls that the polyethylene plant at Sarnia, now operating at full capacity, encountered many "start-up" problems and that many months of work were required to get the "bugs" out of the process. For this reason, perhaps, the company hasn't yet set a target date for completion.

Petroleum Derivatives

Despite the new frontier a prominent citizen recently claimed we are approaching, petroleum derivatives continues uninspired and sustains a routine pace of activity. In the aromatic solvents benzene remains tight regardless of herculean production. Toluene is steady with prices firm and a tendency to some snugness in exports. Xylene is unchanged. Aliphatic solvents relative to the paint industry are doing well. Hexane is expected to be somewhat dormant until farm policies are announced by the contending political parties and are weighed by the crushing industry. Waxes are firm with demand steady and supply ample. LPG's show strength, especially in ethylene.

Price Trends

Advanced
None

Reduced
None

Comparative Price Indexes
(100—1949 average)

Last week	Prev. week	Last month	July 24, 1959
103.74	103.74	103.82	104.42

For Current Prices See Page 9

According to the Bureau of Mines the amount of domestic crude oil that will be consumed or exported in August is estimated at 7,125,000 barrels daily, compared with 6,995,000 barrels forecast for July.

Crude oil production for the first six months of 1960 averaged 7,042,000 barrels daily or 2.1 percent less than the same period in 1959. Crude runs to stills averaged 8,037,000 barrels daily compared to 8,052,000 barrels for January-June 1959. Lower crude runs helped to reduce stocks and at the end of June stocks of crude petroleum and the four major petroleum products were 36.3 million barrels below June 30 of last year.

"Thus," the Bureau comments, "the outlook for domestic crude oil demand in the last half of 1960 appears more encouraging."

As reported in OPD (7/18/60) the Department of Commerce has revised export regulations on eighteen petroleum products. Shipment is now permitted to most destinations without the necessity of applying for individual export licenses. Among the products are: white mineral oil; red, pale and black oil; cylinder bright stock and cylinder steam fitted stock; insulating or transformer oil; cutting oils; petroleum-based graphite greases and lubricants, and aviation fuel, except jet fuel.

Aromatic Solvents

Benzene—Tight til the end of the year—that's the consensus of opinion in the trade. The stroke of twelve on December 31 will not open hidden spiggots but it should find factors in the market favorable to a return to a more balanced supply picture.

Petroleum producer are churning out material in efforts to maintain pace with demand. The scope and volume of that demand is what is keeping supply short. European and Latin American buyers are paying 10 to 12c above domestic market contract prices in their quest for benzene. With such lucrative markets open, US producers are naturally anxious to divert material to export. Old domestic customers are being supplied, of course, as premium export outlets may not last forever. Spot customers are paying 40c a gallon.

Cokeoven production is edging up along with steel and may prove to be a balancing factor by late fall. Additionally, toluene is being converted to benzene in the Gulf area in order to meet calls.

Toluene—The supply situation for this solvent is generally unchanged. Presently snugger than it had been earlier this year, toluene holds a normal marketing position. Anyone looking for material can find it. The only difficulty noted is in securing large amounts for export. This is understandable in view of the price differential and the demand current in domestic areas.

Material is being run into gasoline as motor fuel consumption increases. Bureau of Mines gasoline forecast for August is 4,331,000 barrels daily, 5.4 percent above a year ago.

Price remains unchanged at 25c a gallon, delivered in tankcars, east of the Rockies.

Aliphatic Solvents

Hexane—Slack activity is reported from vegetable crushing areas. At present interested parties are awaiting definitive farm policy statements from the two political camps. To a large extent these pronunciamentos will determine the volume of the material to be crushed for oil.

Prices are unchanged.

VM&P Naphtha—Routine seasonal activity is reported for this product. Trade paint sales rose 3 percent in June over the previous month, but were slightly below June of last year.

Currently, vm&p in tankcars, New York and New Jersey, is moving at 19c. a gallon. Group 3 price, on the same basic, is .13875 and Houston, on the same basis, .155.

LPG's

Butane—During the last two weeks of June 67,277,000 gallons were produced. This is a drop from the 79,829,000 gallons turned out in the first two weeks of the same month.

Stocks as of June 30 were 326,140,000 gallons as opposed to 314,560,000 gallons on June 15.

Ethane-Ethylene—In the period June 16-30 22,149,000 gallons were produced. This is a decrease from the previous two week period when 21,048,000 gallons were recorded.

Stocks on June 30 totaled 913,000 gallons, the same as on June 15 this year and also in 1959.

Waxes

Demand for both paraffin and microcrystalline continues well sustained as it has for some time past. Supplies are adequate to meet all needs, the trade reports, and no change is anticipated.

Microcrystalline in coating grades continues at 10 to 11c. per lb in tankcars at works. Laminating grades, on the same basis, are 11 to 12c.

Paraffin, crude, in tanks at refinery remains .0655c a pound while the fully refined product on the same basis through all melting ranges is .0765c a pound.

Miscellaneous

Current reports of the industry for the week ended July 8, 1960 indicate an increase in crude-oil production and a decrease in crude runs. According to the API, the daily average output of crude (including lease condensate) was 6,811,000 barrels, an increase of 20,000 barrels from the preceding week. Daily average crude runs to stills of 8,280,000 barrels were 15,000 barrels below the preceding week, and 444,000 barrels above the week ended July 10, 1959. Runs of foreign crude amounted to 1,024,000 barrels daily, compared with 1,013,000 barrels in the preceding week. For the four-week period ending July 8, crude oil production averaged 6,826,000 barrels daily, and crude runs to stills averaged 8,210,000 barrels daily with runs of foreign crude averaging 1,034,000 barrels daily.

Crude Oil Stocks

Stocks of domestic and foreign crude petroleum at the close of the week ended July 9, totaled 249,120,000 barrels according to data reported by the Bureau of Mines. Compared with the total of 254,676,000 barrels the preceding week, this represents a decrease of 5,556,000 barrels, comprising a decrease of 5,728,000 barrels in stocks of domestic crude and an increase of 172,000 barrels in stock of foreign crude.

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Aliphatic Naphthas and Solvents

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2—Sharples C-27 Super-D-Hydrator, 316 S.S. Monel.
1—Bird 18"x28", Solid Bowl, Continuous, 316 S.S.
1—Bird 36"x50", Solid Bowl, Continuous, 347 S.S.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
1—Tolhurst 26" susp. Rubber Imperforate Basket.
2—Fletcher 48" Suspended 316 S.S. Perforated Basket.
2—Sharples #16, 304 S.S., 3 HP motor.

REACTORS — EVAPS — CONDS — TANKS

1—Pfaudler, Jacketed, Agitated Reactor with Condenser and Receiver.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—1400 gal. Blaw-Knox, steel, jacketed, agitated Reactor.
1—4000 gal. 316 S.S. clad agitated Reactor with coils.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—7500 gal. 316 S.S. Vert. Storage Tank, 7'x25', 50 psi.
1—750 gal. nickel clad Mixing Tank, 125# nickel coils.
1—500 gallon Mixer Tank with nickel coils.
1—4000 gal. Haveg Vert. Tank 8'x12'.
3—7500 gal. Rubber Lined Tanks 10'x13'.
1—1500 gal. Stainless Pressure Tank, 5'x10', 90#.
1—12,000 gal. horiz. steel Pressure Tank, 7'6"x36', 200 psi.
6—Stainless Heat Exchangers; 1220, 786, 536, 370, 315, 250 sq. ft.
1—Falls Industries 100 sq. ft. Karbate Condensor.
1—24" dia. x 35', 304 S.S. Bubble Cap Column.

FILTERS

1—Oliver 6' dia. Horizontal Filter, 316 S.S.
1—Oliver 3'x6' Steel Rotary Vacuum Precoat Filter.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet Filter.
1—Oliver 5'3"x8' Steel Rotary Vacuum, vaportite housing.
1—Oliver 3' x 2' 347 S.S. Rotary Vacuum Filter.
1—Feinc 5'x6' Stainless Steel Rotary Vacuum Filter.
2—#10 Sweetland Filters, 27 leaves, 4" centers, 250 sq. ft.

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1—Buflovak Vacuum Shelf with 20—60"x80" shelves.
1—Devine Vacuum Shelf with 19—59"x78" shelves.
1—Devine Vacuum Shelf with 10—40"x43" shelves.
2—Buflovak 42"x120", atmospheric double drum Dryers, complete.
2—Devine 4'x9', single drum, atmospheric.
1—Buflovak 3'x10' Rotary Vacuum Dryer.
1—Baker Perkins 5'6"x6' Rotary Vacuum Dryer.
2—Louisville Rotary Steam Tube 6'x25', 6'x50'.
2—Louisville 8'x50' Stainless Steel lined Rotary Dryers.
9—Rotary Dryers 34"x30', 4'x40', 6'x50', 6'x60', 7'x80', 8'x87'.
1—Traylor 30"x18' Stainless Steel Rotary Dryer.
2—Link Belt, 7'5"x25', 6'4"x24", S.S. Louvre Dryers.
2—Atmos. Tray Dryers, 16 shelves, 40"x24".
1—P&S 10' wide Apron Conveyor Dryer 48' long.

MIXER

1—Baker Perkins 100 gal., jacketed, double arm, 30 HP.
1—Baker Perkins #16TRM, 150 gal. jktd., Vac. 60 HP.
1—Baker Perkins 50 gal. jacketed, double arm.
1—Baker Perkins 9 gal. jacketed 304 S.S. double arm.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—Patterson 6' dia. Conical Blender 15 HP.
1—500# Abbe 304 S.S. Powder Mixer.
1—3' dia. Simpson Intensive Mixer.
1—Stokes 21K, 304 S.S. Granulating Mixer 82 gals.

MISCELLANEOUS

1—Farrel Birmingham, Size B Banbury Mixer, 304 S.S.
1—Farrel Birmingham, 8" x 16", 2 Roll Chrome Plated Mill.
2—ISH, ISI Mikro, Pulverizers, 3 HP.
3—Abbe 2½' x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10' dia. Single with Separator.
1—#5 Mikro Atomizer with motor and cyclone.
2—Bantam Mikro Pulverizers, S.S.
1—No. 1 Ball & Jewell Rotary Cutter.
1—#18 Cumberland Rotary Cutter.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
1—#24 Rotex Sifter, 20" x 64", Quadruple deck.
8—Stokes: DD2, DDS2, T, "R", and "F" Tablet Presses.
4—Nash Vacuum Pumps: H6, TS7, #2.
25—Chlorimet, Durimet and Duriron Centrifugal Pumps 1½" to 6".

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Pettibone Named to Head Chemical Trading Company

Richard D. Pettibone has been elected president of Pettibone-Chicago Import Company, a newly-formed international trading firm in Chicago that plans to specialize as brokers and distributors in the chemical field.

Mr. Pettibone, formerly with G. D. Searle & Co., says that formation of the new company has been prompted by development of the St. Lawrence Seaway, rapid growth of the chemical industry of free-world countries and increasing interest of midwestern chemical buyers in overseas sources of supply.

The firm is located at 161 East Grand Avenue, Chicago.

Humphrey-Wilkinson Nears Completion of Expansion

Humphrey-Wilkinson, Inc., North Haven, Conn., reports it is nearing completion on a 15 percent expansion in laboratory and production space at its North Haven facilities. Installation of equipment is expected to be completed in about two months.

The company produces intermediates and specialty items for the chemical, petroleum and pharmaceutical industries. This is the firm's seventh expansion since it was founded eleven years ago.

Mobil Chemical Appoints

Mobil Chemical Company has appointed Eber H. Peters as manager of southwest manufacturing in the basic petroleum chemicals division. Mr. Peters' appointment is said to be in line with the company's chemical expansion projects in the southwest. His headquarters will be at Beaumont.

Ultrmarine Tariff Coup?

—*Continued from page 5*

its lower grades into the world markets, the average export sales price being 23.2 cents.

Since the company last changed its price for ultramarine blue in 1953, imports of the competitive pigment from abroad have risen from 702,000 pounds to over 3 million pounds last year. Between 1958 and 1959, imports increased 25 percent, while domestic sales rose only 1.3 percent.

In the past four or five years, Mr. Stark reported, production has declined about 10 percent, and the company today supplies about 57 percent of the domestic market. Profits on ultramarine blue disappeared entirely in the first quarter of this year, he asserted.

Mr. Porter's appearance before the commission was in protest against any reduction in duties on barium sulfate or blanc fixe. The present duty is five-eighths cent a pound, having been reduced in prior agreements from its statutory level of 1¼ cents a pound.

He said that costs of production in Belgium and West Germany—the chief foreign competitors—are well below those in this country. Any further reduction in the tariff duty, he maintained, will only enhance the profits of the foreign producers because the present tariff is no bar to their entry into this market.

The foreign material is being landed in this country at a cost of 3.47 cents a pound, against the domestic price of 7.42 cents a pound, he charged. Six domestic producers turned out 20,900,000 pounds of the pigment in 1954, Mr. Porter said, but in 1958 there were only three US producers with an output of 13,172,000 pounds.

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2 MONEL Reactors, 2800 Gal. with Turbine Agts. Jktd. 175# ASME.
Struthers Wells Type 316 S/S 2000 Gal. Jktd. Agtd. Reactors. NICKEL Clad Reactor; 7' x 11'6".
Lancaster STAINLESS Lined Rot. Reactor; Jktd. 50" x 17'4". STAINLESS Vac. Still 755 Gal.
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STAINLESS Dbl. Arm Vac. Mixer; 150 Gal.
2 Lehmann Amalgamators; S/S Lined; 32" x 44".
Patterson-Kelley STAINLESS Twin Shell Blenders; 30-150 cu. ft.
Oliver Dorrco NICKEL Rot. Vac. Filter; 6' x 3'.
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1—Crosley 6'8" x 7', batch mill silex stone lined.
13—Abbe Eng. 6' x 8', batch mills buhrstone lined, 30 HP.
1—Porter 6' x 5', batch mill buhrstone lined.
1—Abbe 5' x 6', batch mill buhrstone lined.
2—Patterson 4'6" x 12' contin., buhrstone lined.

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60—200 gal. Baker Perkins #17, sigma, blades jacket.
1—150 gal. Baker Perkins #16, sigma, jacket.
3—100 gal. Baker Perkins #15, sigma, jacket, 25 HP.
1—100 gal. Baker Perkins #15-uumm, dispersion blades, cored, 100 HP. compression cover, jacketed.
1—100 gal. J. H. Day, stainless, sigma, 10 HP.
4—75 gal. J. H. Day Imp., disp. blades.
2—50 gal. Baker Perkins, sigma, jacket.
1—20 gal. J. H. Day, #2 Cinc., sigma, jacket.

CENTRIFUGALS—FILTERS

37—Sharples #AS-16V contin. cent., inconel.
3—Sharples size #C-20 super-d-hydrators, T316 SS.
1—Tolhurst 48" dia. susp. batch centrif., T304 SS, perf., 15 HP.
6—A.T. & M. 40" dia. susp. batch centrif., T304 SS, HP.
1—40" Bird susp. basket centrifugal, steel.
1—40" Fletcher susp. basket centrifugal, steel.
1—26" Tolhurst susp. basket centrifugal, steel.
1—12" A.T. & M. susp., T304 SS perf. basket.
1—Niagara #510-28 T316 SS filter, 510 sq. ft.
1—Alco T316 SS pressure leaf filter, 110 sq. ft.
1—Niagara #53-36, T304 SS filter, 53 sq. ft.
2—Sperry P. & F. filter presses, ni-resist, 210 sq. ft.
1—Kelly #50 steel press. filter, 50 sq. ft.
2—Sweetland #7 steel press. filters, 117 sq. ft.
1—Oliver 5'3" dia. x 8' face rot. vac. filter, precoat, unused.
2—Oliver 5'3" x 3' rot. vac. filters, T316 SS, precoat, ASME.
1—American 4' dia. rotary disc filter, 3-disc.
2—Eimco 10' x 12' rot. vac. filters, rubber-covered.

DRYERS

2—Davenport 8' x 60' welded rotary dryers.
1—Buflovak 700 sq. ft. forced circulation evaporator, single effect, T304 SS.
1—Buflovak 5' x 30' rotary vac. dryer, T316 SS, ASME.
1—Buflovak 3' x 7' rotary vac. dryer, T306 SS, ASME.
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1—Buflovak 5' x 12' single drum vacuum dryer—Unused.
1—Buflovak 6" x 8" lab. double drum dryer.
1—Link-Belt #604-18 Roto-Louvre dryer, 6'4" x 18' long.
1—Link-Belt #310-20 Roto-Louvre dryer, 3'10" dia. x 20' long.
1—Allis Chalmers 7' x 50' rotary dryer, 5/8" shell.
1—Gen. Amer. 7' x 40' rotary dryer, 3/8" welded shell.
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4—Rubber lined horiz. storage tanks,5000 gals.,working pressure 45 lbs.
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7—Buflovak Type 316 SS jacketed rotary vacuum dryers, 5' x 30', complete with 25 HP explosion proof motors and drives.
3—Type 316 SS Ter-Meer continuous type centrifuges 4' dia. bowls complete with motors.
3—Readco SS jacketed horiz. blenders, complete with explosion proof motors and drives.
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2—Nash, Model HS-6, Hastelloy B vacuum pumps, with 25 HP motors.
3—Nash, Model HS-6, Type 316 SS vacuum pumps, with 25 HP motors.
3—Nash, Model TS-12, vacuum pumps, with motors.
1—Stokes Type 316 SS, jacketed, rotary vacuum dryer, 2' x 3'.
14—Copper jacketed mixing kettles, 3500 gals. each.
14—Copper jacketed rotary vacuum dryers, 8' x 10'.
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1—Aldrich Type 316 SS hydraulic triplex pump, size 2-3/4"x4", 500 psi.
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1—Sprout Waldron #501D pelleter, complete with 30 HP explosion proof motor.

1—Richmond Engr. Type 316, 40 cu. ft., double ribbon blender.

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1—Day double ribbon blender, 2000#.

2—Buflovak twin drum dryers, 42″ x 120″.

1—Banbury #1 chrome plated mixer, complete with 50 HP motor.

1—Baker Perkins double arm, jacketed, sigma blade mixer, size 16 TRM, 150 gal.

1—Baker Perkins double arm, jacketed, dispersion blade mixer, size UUEM, 150 gal., with 100 HP motor.

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1—Glascote glass lined jacketed reactor with Glascote turbine type agitator and drive, 500 gal.

1—Shriver 36″ x 36″ cast iron filter press, 48 chambers.

1—Oliver SS pressure precoat filter, 5′3″ x 8′.

1—Oliver SS rotary vacuum precoat filter, 3′ x 4′.

1—Stokes #412F vacuum pump complete with motor.

8—Western States 40″ Type 316 SS, suspended type centrifuges complete with perforate baskets, plows and 40 HP motors.

4—Tolhurst 40″ rubber covered, center slung centrifuges, complete with perforate baskets and motors.

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R. GELB & SONS, INC.
UNION, NEW JERSEY Est. 1886 MUrdock 6-4900

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4—Jeffrey, Williams & Sturtevant Hammer Mills, all motor driven.
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1—Premier 8″ Colloid Mill, 30 h.p. mtr.

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2—AUTOCLAVES S.S., 50 gal. 2000 lb., 3½ gal. 2000 lb.
1—DRUM DRYER, Proctor & Schwartz.
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1—3′ x 24′ gas fired rotary dryer.

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1—J H Day 30 gallon jacketed Imperial mixer.

1—International 10 cu. ft. stainless double cone blender.

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Japan's Petrochemical Growth Ten-Fold

—Continued from page 7

tanol and octanol from its own cracking plant.

• Idemitssu Kosan will recover propylene from the oil refinery at Tokuyama, from which Nissan Chemicals Company will make polypropylene.

• Toa Nenryo Tokyo KK is building a new refinery in Kawasaki and will recover ethylene, propylene, butadiene, butylene, butanol and octanol. Here's where they'll go:

Butadiene—To Japanese Geon Company.

Butylene—For the butadiene plant of Japan Synthetic Rubber Company.

Ethylene—For Nitto Chemical Company, which will begin production of acetaldehyde and polyethylene (Nitto will build an additional ethylene plant with feedstocks furnished by Toa Nenryo).

Ethylene—Other ethylene will be supplied to Showa Denko KK which will also take propylene for the manufacture of acetaldehyde, vinyl chloride, propylene oxide and propylene glycol.

• Yawata Chemical Company in 1961 is expected to begin production of ethylene, acetylene, butanol and other products.

Why has MITI decided on a second five-year plan? Judging by the results from the first plan during the last two years, who wouldn't? Production of chemicals from petroleum was 8,500 metric tons in 1957, some 48,000 metric tons in 1958 and 175,000 tons in 1959.

Although several of the petrochemical capacities planned or under construction are not known at present, at least some picture can be drawn of 1961 capabilities from what is known:

Acetylene—14,400 metric tons in place, of which Sumitomo has 8,500 tons at Niihama and Kyowa 5,900 tons at Ube.

Ethylene—110,800 metric tons in place: Mitsui, 20,000 tons at Iwakuni; Japan Petrochemical, 25,000 tons at Kawasaki; Sumitomo, 28,500 tons at Niihama; Tokyo Gas, 5,400 tons at Tokyo; Ube Industries, 20,000 tons at Matsuyama, and Kyowa, 11,900 tons at Ube.

Ethylene Oxide—Mitsui, 11,800 tons at Iwakuni; Mitsubishi, 3,000 tons at Yokkaichi; Hihon Shokubai, 4,700 tons at Kawasaki. Total: 19,500 tons.

Styrene—Mitsubishi, 18,000 tons per annum at Yokkaichi and Asahi-Dow at Kawasaki, 18,00 tons. Total: 36,000 tons.

Ethylene Glycol—Mitsui, 9,100 tons at Iwakuni; Mitsubishi, 3,200 tons at Yokkaichi; Hihon Shokubai, 6,200 tons at Kawasaki. Total: 18,500 tons.

Propylene—39,600 tons total, of which Mitsui has 10,000 tons at Iwakuni, Japan Petro has 19,600 tons at Kawasaki, and Mitsubishi and Ube have 5,000 tons each at Kawasaki and Matsuyama.

Isopropanol—Japan Petro has 2,000 tons at Kawasaki and Mitsubishi has 2,000 tons at Yokkaichi. Total: 4,000 tons.

Acetone—Mitsui, 6,800 tons at Iwakuni and Japan, 3,500 tons at Kawasaki, for a total of 10,300 tons.

Methyl Isobutyl Ketone—Japan, Petrochemicals 2,200 at Kawasaki, and Mitsubishi, 3,900 tons at Yokkaichi. Total: 6,100 tons.

Methyl Ethyl Ketone—Maruzen Oil, Shimozu, 18,500 metric tons.

Butadiene—Japan Petrochemical, Kawasaki, 5,200 metric tons; Japan Synthetic Rubber, Yokkaichi, 25,000 tons. Total: 30,200 tons.

Butanol—Maruzen, Shimozu, 2,400 tons; Kyowa Fermentation, Ube, 14,8oo tons for a total of 17,200 tons.

Roster of BTX Producers

Benzene, Toluene, Xylene—Maruzen, 6,000 tons (B); 3,600 tons (T); 3,600 tons (X), at Matsuyama. Mitsui, 8,800 (B); 11,200 (T), and 11,200 (X) at Iwakuni.

Also, Mitsubishi Oil, 4,700 tons (B); 3,500 tons (T); 3,000 tons (X) at Kawasaki, and Sumitomo, 6,300 tons (B); 7,200 tons (T), and 4,100 tons (X) at Niihama.

Total benzene capacity: 25,800 metric tons. Total toluene: 25,500 tons. Total xylene: 21,900 metric tons.

Phenol—Mitsui can make 12,000 tons a year at Iwakuni.

Terephthalic Acid—Maruzen, 2,000 tons a year at Matsuyama, and Mitsui, 13,600 tons per year at Iwakuni, for a total potential of 15,600 tons per year.

Despite all the stir about petroleum chemicals, the natural gas chemical industry isn't taking a back seat. Japan, while it has little or no petroleum of its own, is considerably more fortunate in natural gas reserves.

To illustrate the dramatic growth of natural gas production in Japan: 110 million cubic meters in 1953; 243 million cubic meters in 1957; 540 million in 1959, and 700 million anticipated this year.

Here's what Japan's petrochemicals-from-natural-gas industry capacity looks like for 1960:

Methane Chemical Capacity

Ammonia	195,000 metric tons
Ammonium Sulfate	293,000 metric tons
Urea	427,000 metric tons
Methanol	142,300 metric tons
Acetylene	22,000 metric tons
Acrylonitrile	20,900 metric tons

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DX Sunray Oil Slates Tulsa Distillation Unit

DX Sunray Oil Company, Tulsa, Okla., will construct a new crude oil distillation unit with a capacity of 85,000 barrels a day at its Tulsa refinery.

Primary purpose of the facility is to reduce costs and increase efficiency, a spokesman for the Sunray Mid-Continent Oil Company subsidiary says. The installation will replace five crude units presently in operation at Tulsa. These five units, which will be dismantled or used for other processing, have a combined capacity of 75,000 barrels a day.

Interlake Names Ross

Donald C. Ross has been named sales manager of Interlake Iron Corporaton's coke and coal chemicals division in Cleveland, Ohio, succeeding Joseph A. Mitchell, who has retired. Mr. Ross has been with Interlake since 1945.

Tar Distillation Gains

—Continued from page 7

lons, valued at $33 million, compared with 137 million gallons, valued at $29 million a year earlier.

Xylene output (including that produced for blending in motor fuel) amounted to 241 million gallons, up from 1958's 200 million gallons. Sales rose to 129 million gallons, valued at $28 million, from the previous year's 81 million gallons, valued at $21 million.

Production of crude naphthalene in 1959 was 425 million pounds, compared with 345 million pounds in 1958. Sales amounted to 267 million pounds, valued at $13 million.

Production of creosote oil (100 percent creosote basis) was 90 million gallons, compared with 105 million gallons in 1958. The output of road tar in 1959—66 million gallons—was about 4 percent smaller than the 69 million gallons produced in 1958.

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Coatings Materials

—*Continued from page 45*

year are about 20 percent above the same period of 1959. Significantly, shipments of Argentine casein to Europe are reported to have increased by about 45 percent. In past year, some 75 percent of the Argentine exports of casein came to this country. So far, this year, only some 60 percent have found their day into this country.

Weather in the Argentine during April, May and June is reported to have been far from favorable and while production declined, shipments increased. Opinions in the trade are that unshipped stocks at the present are 25 percent lower than they were a year ago. Estimates of production for 1960 run in the range of 37 to 38,000 tons.

Production estimates of Polish casein are for a yield of 22,000 tons. Last year imports of Polish casein totaled 4.145 tons. Since Polish casein was relatively unknown until a few years ago, most trade sources view Polish casein as a coming thing.

As with Australian casein, New Zealand casein production season got underway July 1. It also reaches its peak around October. Estimates for production in the 1960-61 season are in the neighborhood of 26,000 tons.

Natural Resins

Gums—Market conditions for the various grades of gums, Dammar and Congo Copal, are reported to be unchanged. Interest is of course centered on the situation in the Congo. Trade sources are optimistic. They feel that the unrest in the Congo will settle shortly, thus returning the flow of the copal gums to this country. For the present prices are unchanged. Supplies are termed adequate, although much depends on the duration of the unrest in the Congo.

Shellac—No change is noted for the shellac market this week. Mill closings for summer vacations, combined with the usual summer decline in demand has resulted in routine market conditions. Prices are reported to be holding firmly to their old listings. Supplies are adequate at both domestic and foreign sources.

Fillers and Inerts

Asbestos—Asbestos fibre shipments for the Month of May were up 18,700 tons over May of last year. Shipments to date are reported to be running 15 percent ahead of the same period last year, and this trend is expected to continue during the balance of the year. All fibre grades are reported to be in ample supply.

The market situation for asbestos textiles at the present time is fair but recent government buying is felt by some to have assisted in maintaining reasonable volume. The outlook for the remainder of year is termed fair.

Naval Stores

Production of gum naval stores during June totaled 17,060 barrels of turpentine and 46,950 drums of rosin, up sharply from May, according to the Crop Reporting Board. Still output during the first quarter of the 1960-61 season was about 7 percent more than for the same period last season. Production of wood turpentin, at 41,870 barrels, was 2,080 barrels less than the previous month and 1,040 barrels less than June a year earlier. Steam distilled rosin production was reported at 107,040 drums—the largest since January—compared to the 97,600 drums last month, while tall oil rosin production of 37,820 drums set a record high for any month.

Stocks of gum turpentine and rosin on June 30, 1960 showed small seasonal increases over a month ago. Stocks of wood turpentine and steamed distilled and tall oil rosin were also slightly higher.

Production of miscellaneous naval stores is reported to be below the levels set for the first quarter of the 1959-60 season. Output of dipentine for the months April through June was marginally below the level for the same period last season. Production of pine oil and other monocyclic hydrocarbons were also below the earlier seasonal levels.

Pine Gum—The average paid per standard barrel of commercial crude gum for the week ended July 9 was $38.30. For the previous week, the average price paid was $38.30. For the same date a year ago, the reported price was $27.90. No loan.

The volume of gum deliveries for the week ended July 15 totaled 17,300 barrels as against 20,900 barrels for the previous week. For comparison purposes, 20,380 barrels were delivered a year ago at the same date.

Rosin, Gum

(USDA, per 100 lbs.)

	Fri. July 15	Mon. July 18	Tues. July 19	Wed. July 20	Thurs. July 21
Drums—					
G	...	$13.15	...	...	...
K	...	...	$13.52	...	...
WG	$13.30	13.80	13.71	$14.00	$13.60
WW	...	13.80	...	13.86	13.75
Bags—					
G	12.95	...	...	...	...
K	...	...	...	13.50	...
WW	...	...	13.91	...	...
Tankcars (for week ended July 22)—					
K or better, $12					
Sales, USDA	922*	1,135*	6‡	937*	1‡

New York
(Per 100 lbs., c.l., Friday)
WW, $14.75; WG, $14.60; N, $14.50; K-M, $14.40

Turpentine, Gum

(USDA, per gal., 7.2 lbs.)

Price	...	...	44.4c.	46.5c.	46
Sales	...	...	8,000¶	6,000¶	12,000¶

* Drums equivalent. ‡ Carlots. ¶ Gallons.

FDA Bares Teeth in New Set of Drug Controls

—*Continued from page 3*

ers are required, when filing new drug applications, to disclose to FDA all the results of their clinical tests—including indications and contra-indications. This information is set out in the brochure that must accompany every application when filed.

There is no requirement, however, that this information be automatically distributed to physicians. Doctors can ask for the information from manufacturers, but usually are expected to obtain it from the medical literature.

Action Makes New Labels Universal

FDA's amendments make this part of the labeling of the drug that must accompany its delivery. Some of the larger manufacturers are including the information in the packages already, but the requirement will be applied universally.

Industry may find this requirement objectionable because of the heavy expense involved, although it may not be required in all cases. The regulations permit exemptions where the information is "commonly known to the practitioner."

Not only must the information about hazards, side-effects, necessary precautions and complete directions for use be included in every package distributed by the manufacturer, but this same information must also be included in all promotional literature sent to physicians and, by agreement with FDA's new drug branch, in every advertisement for the drug.

Other proposed labeling changes would require drugs for injection and for use in the eyes to bear a quantitive declaration of all inactive ingredients. Labels of all prescription drugs will be required to include "an identifying lot or control number from which it is possible to determine its complete manufacturing history of the drug."

Exemptions for Small Labels

Exemptions are permitted where there is insufficient label space and the information is given on other parts of the drug package. All labeling bearing information for use of a drug would be required to show the date of its issuance.

FDA says the proposed labeling changes will correct a tendency on the part of some manufacturers to describe to physicians the merits of a drug without giving information regarding its hazards and the special precautions necessary for maximum safety and effectiveness.

Commissioner George P. Larrick commented that "the large number of new medications has made it increasingly difficult for doctors and pharmacists to keep adequately informed about them.

"We are hopeful that the proposed regulations will improve communication of vitally necessary information to bring about a general improvement in drug promotion practices.

"At the same time, they should furnish a basis for more effective government control where necessary."

US Styrene Capacity

—*Continued from page 3*

on the heels of disclosure by Suntide Refining Company that it expects to be making styrene monomer by 1962 (OPD, 7/18/60).

The Sunray Mid-Continent Oil Company subsidiary contemplates the construction of a 60-million-pound-a-year plant at its Corpus Christi, Tex., refinery.

Besides Shell and Suntide, five other companies have revealed styrene ventures this year. All in all, some 690 million pounds will be added to US styrene monomer capacity by projects blueprinted for the next two years.

Here are the other styrene expansion moves:

Dow Chemical Company—It will hike its capacity by 200 million pounds. Dow's total projected capacity: 800 million pounds a year.

Monsanto Chemical Company—It will add 200 million pounds. Monsanto's capacity by 1962: 560 million pounds a year.

Foster-Grant Company—It will increase its capacity by 45 million pounds. Foster-Grant's projected total: 105 million pounds a year.

Cosden Petroleum Corporation—It plans to go from 20 million pounds to 60 million pounds of styrene a year.

Sinclair-Koppers Company—It intends to build a 70-million-pound monomer plant.

Styrene producers still not heard from: Odessa Styrene Company (capacity: 50 million pounds a year) and Union Carbide Corporation (capacity: 110 million pounds of monomer annually).

As OPD figures it, US styrene capacity today is around 1.62 billion pounds. By 1962, according to our reckoning, industry capacity will be in the neighborhood of 2.27 billion pounds.

Shell Chemical has been in the styrene market since 1955, when it acquired the synthetic rubber complex at Torrance from the government.

The styrene facilities, which are part of the integrated operation, had a rated capacity of 125 million pounds a year in 1955. Since then, it's been learned, styrene capacity at Torrance has quietly been nudged up another 10 million pounds.

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